



Bureau of Air Pollution Control

Facility ID No. A0379

Permit No. AP4911-0897.01

CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions

A. Emission Unit #S2.001:

UTM: North 4,059.509 km, East 711.545 km (Zone 11)

| System 01 | Reid Gardner Unit #1 Steam Boiler, 100% Coal Fired with Natural Gas Igniters |
|-----------|--|
| S2.001 | Steam Boiler, Foster Wheeler, Model #5757, Serial #36-4109, Manufactured April, 1965. 1,215 million Btu/hr, Maximum Heat Input, Nominal 110.0 MW Output SCC 10100202 (bituminous) and 10100222 (sub-bituminous) |

Descriptive Stack Parameters

Stack Height: 200.0 ft

Stack Diameter: 13.46 ft

Stack Velocity: 58.5 ft/sec

Stack Temperature: 300.0 °F

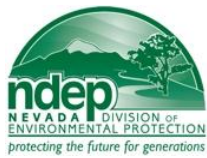
1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution EquipmentEmissions from **S2.001** shall be ducted to the following emissions control system with 100% capture and a maximum volume flow rate of **500,000 actual cubic feet per minute (ACFM)**:

- Low NO_x coal burners and over-fired air.
- Baghouse (Pulse-Jet Fabric Filter) for the control of PM.
- Soda ash wet scrubber (Flue Gas Desulfurization – FGD) for the control of SO₂.

The volumetric flow rate may be determined by utilizing Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate as referenced in 40 CFR Part 60, Appendix A.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission Limits

- On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.001**, the following pollutants in excess of the following specified limits:
 - NAC 445B.2203 Federally Enforceable SIP Requirement – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.20 pound per million Btu**.
 - NAC 445B.305 Part 70 Program – The discharge of PM and PM₁₀ to the atmosphere will not exceed **0.08 pound per million Btu**.
 - NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of sulfur to the atmosphere will not exceed **729.0 pounds per hour**.
 - NAC 445B.22057 State-Only Requirement – The allowable emission of sulfur from fossil-fired power generating Unit Number One of the Nevada Power Company's Reid Gardner Station, located in air Quality Control Region 13, Basin 218, California Wash, must not be greater than **0.275 pound per million Btu**.
 - NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The discharge of SO₂ to the atmosphere will not exceed **0.55 pound per million Btu** (based on a 3-hour rolling average period).
 - NAC 445B.305 Consent Decree Requirements – The discharge of SO₂ to the atmosphere will not exceed **0.40 pound per million Btu** (based on a 10-day rolling average period).
 - NAC 445B.305 Part 70 Program – The discharge of SO₂ to the atmosphere will not exceed **0.37 pound per million Btu** (based on a 3-hour rolling average period).
 - NAC 445B.305 Part 70 Program – The discharge of NO_x (Oxides of Nitrogen) to the atmosphere will not exceed **0.46 pound per million Btu** (based on a 12-month rolling average).
 - NAC 445B.305 Part 70 Program – The discharge of CO (Carbon monoxide) to the atmosphere will not exceed **1,000 pounds per hour**.



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Section VI. Specific Operating Conditions (continued)A. Emission Unit #S2.001 (continued)2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)Emission Limits (continued)

- a. On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.001**, the following pollutants in excess of the following specified limits: (continued)
 - x. NAC 445B.305 Part 70 Program – The discharge of VOC (Volatile Organic Compounds) to the atmosphere will not exceed **430 pounds per hour**.
 - xi. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from **S2.001** will not equal or exceed **20%**. The opacity must be determined as set forth in 445B.22017.1(a) or (b).
- b. Specific Acid Rain Requirements Parts 72 - 78 Acid Rain Program
 - i. **The Permittee** will not exceed the SO₂ and NO_x emission levels (acid rain allowances) for the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions and pursuant to 40 CFR 72.9:

| Calendar Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|-------|-------|-------|-------|-------|
| S2.001 SO₂ Phase II Allowance | 2,172 | 1,985 | 1,985 | 1,985 | 1,985 |
| S2.001 NO_x Emission Limit (lb/MMBtu) | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 |

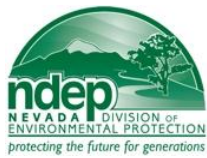
- ii. **The Permittee** will comply with the “Standard Requirements” provisions of the SO₂ acid rain permit application dated July 7, 2008 entitled “Phase II Permit Application” and all references contained therein, which is hereby incorporated by reference into this operating document (Attachment 1). [NAC 445B.305].

3. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramOperating Parameters

- a. **S2.001** will combust sub-bituminous and/or bituminous coal; and/or natural gas for purposes of startup, shutdown and/or flame stabilization only.
- b. **S2.001** may operate a total of **8,760 hours per calendar year**.
- c. The maximum operating heat input rate for **S2.001** while combusting sub-bituminous and/or bituminous coal and natural gas will not exceed **1,215 million Btu per any one-hour period**.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reportinga. Compliance/Performance TestingWithin 180 days of the date of issuance of this operating permit, and once annually thereafter, **The Permittee** will:

- i. Conduct and record a Method 5 performance test for PM on the exhaust stack of **S2.001** consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch.
- ii. Conduct and record a Method 201A and 202 performance test for PM₁₀ on the exhaust stack of **S2.001** consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The Method 201A and 202 emissions tests may be replaced by a Method 5 performance test, including the back-half catch. All particulate captured in the Method 5 test will be considered PM₁₀ for compliance demonstration purposes.
- iii. Conduct and record a Method 6 or 6C performance test for SO₂ on the exhaust stack of **S2.001** consisting of three valid runs. The Method 6 or 6C emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 (*PSD permit requirement VIII.B.2. issued January 3, 1980*).



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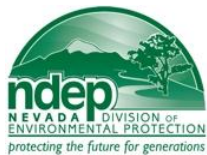
**CLASS I AIR QUALITY OPERATING PERMIT
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Section VI. Specific Operating Conditions (continued)

A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
 - a. Compliance/Performance Testing (continued)
 - iv. Conduct and record a Method 7 or 7E performance test for NO_x on the exhaust stack of **S2.001** consisting of three valid runs. The Method 7 or 7E emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
 - v. Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.001** consisting of three valid runs. The Method 10 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
 - vi. Conduct and record a Method 25, 25A or 18 performance test for VOC on the exhaust stack of **S2.001** consisting of three valid runs. The Method 25, 25A or 18 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A or 18.
 - vii. The performance tests will be conducted at the maximum operating heat input rate limit established in **A.3.c** of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.3 & 4. **The Permittee** shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3). Should any anticipated major boiler overhaul(s) be scheduled to be performed, which coincide with the performance tests, the performance testing will be performed prior to the overhaul(s). If the performance testing cannot be performed prior to a major boiler overhaul, the testing will be performed as soon as practicable following the overhaul(s), but not earlier than 60 days following the overhaul.
 - viii. **The Permittee** shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4).
 - ix. During each performance test required in **A.4.a.i. through vi.** of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted.
 - (1) The emissions results of the Method 5 performance test for PM and the Method 201A and 202 performance test for PM₁₀ must be reported in lb/MMBtu.
 - (2) The emissions results of the Method 6 or 6C performance test for SO₂ must be converted to emissions of sulfur (both lb/hr and lb/MMBtu).
 - (3) The emission results of the Method 7 or 7E performance test for NO_x must be reported in lb/MMBtu.
 - (4) The emission results of the Method 10 performance test for CO must be reported in lb/MMBtu.
 - (5) The emission results of the Method 25, 25A or 18 performance test for VOC must be reported in lb/MMBtu.
 - x. As a result of the most recent performance test performed in **A.4.a.i. and ii.** of this section, derive emission factors for each of the following:
 - (1) Pounds of PM per ton of coal (lb-PM/tons-coal).
 - (2) Pounds of PM₁₀ per ton of coal (lb-PM₁₀/tons-coal).
 - (3) Pounds of CO per Million British Thermal Units (lb-CO/MMBtu).
 - (4) Pounds of VOC per Million British Thermal Units (lb-VOC/MMBtu).These emissions factors will be based on the average of the 3 test runs.
 - xi. Within 60 days after completing the performance tests contained in **A.4.a.** of this section, **The Permittee** shall furnish the director a written report of the results of the performance tests and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689 (NAC 445B.252.8).



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
a. Compliance/Performance Testing (continued)

xii. Within 180 days of issuance of this operating permit, and once every year thereafter, conduct the Relative Accuracy Test Audit (RATA) required to certify the performance of the:

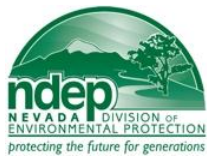
- (1) SO₂ CEMS described in **A.4.b.viii.** of this section
(2) NO_x CEMS described in **A.4.b.x.** of this section.

The annual RATAs must be conducted once every four-consecutive operating quarters. The RATAs must be done as prescribed in 40 CFR Part 60, Appendix F, and in accordance with the notification, protocol approval, and reporting requirements of NAC 445B.252 Testing and Sampling, and NAC 445B.259 Monitoring systems: Performance evaluations.

b. Monitoring

The Permittee, upon issuance of this operating permit will:

- i. Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of sub-bituminous and/or bituminous coal (in tons) combusted in **S2.001**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.001**.
- ii. Install, calibrate, operate and maintain a fuel flow meter to continuously record the volume (in standard cubic feet) of natural gas combusted in **S2.001**. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.001** in accordance with the requirements prescribed in 40 CFR Part 75.
- iii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of sub-bituminous and/or bituminous coal as measured by the coal mass measurement device and the quantity of natural gas (in standard cubic feet) as measured by the fuel flow meter as required in **A.4.b.i. and ii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.
- iv. Perform coal sampling of the coal prior to it entering the boiler. Sampling shall be conducted for moisture, ash, sulfur content, and gross calorific value. A coal analysis shall be performed weekly and the results of these analyses shall be retained for at least two years following the date of the measurement. All sample collection, sample preparation, and analyses performed or caused to be performed shall be conducted according to the most current ASTM methods (*PSD permit requirement VIII.E. issued January 3, 1980*).
- v. Perform coal sampling of the sub-bituminous and/or bituminous coal weekly according to section 12.5.3.2.2 in Method 19 in appendix A to Part 60 and use ASTM Method D2234-89, "Standard Test Methods for Collection of a Gross Sample of Coal." Determine the gross calorific value of the sub-bituminous and/or bituminous coal combusted by sampling at least once weekly, using ASTM D2013-86, "Standard Method of Preparing Coal Samples for Analysis", ASTM D2015-91, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter", ASTM 1989-92, "Standard test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters", or ASTM 3286-91a, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter."
- vi. Maintain on site, monthly analysis of calorific value of natural gas provided by natural gas supplier.
- vii. Substitute any missing fuel flow meter data in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D, Section 2.4.2.



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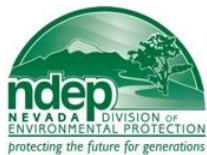
A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring (continued)

- viii. Install, calibrate, operate and maintain a SO₂ continuous emissions monitor system (CEMS) (consisting of a SO₂ pollutant concentration monitor and a flow monitoring system) to continuously measure the concentration of SO₂ (in ppm), volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu) from **S2.001**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.001** to accurately and continuously measure the SO₂ concentration in **S2.001** in accordance with the requirements prescribed in 40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specification 2 (*PSD permit requirement VIII.D.2.a. issued January 3, 1980*), 40 CFR Part 75, Part 75.11 and Appendix F.
- ix. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the SO₂ concentration (in ppm), volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu) on 1-hour average period and SO₂ mass emissions (in lb/MMBtu) on 3-hour rolling average period and 1-day average period, as measured by the CEMS required in **A.4.b.viii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specification 2 (*PSD permit requirement VIII.D.2.a. issued January 3, 1980*), 40 CFR Part 75, Part 75.11 and Appendix F.
- x. Install, calibrate, operate and maintain a NO_x continuous emissions monitor system (CEMS) (consisting of a NO_x pollutant concentration monitor and a flow monitoring device) to continuously measure the concentration of NO_x (in ppm), volumetric gas flow (in scfh), and NO_x mass emissions (in lb/MMBtu) from **S2.001**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.001** to accurately and continuously measure the NO_x concentration in **S2.001** in accordance with the requirements prescribed in 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F. For performance evaluations under 40 CFR Part 60.13(c) and calibration checks under 60.13(d), Method 7 and 3B shall be used for the performance evaluations of nitrogen oxides (40 CFR Part 60.45(c)(1)). Nitric oxide shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B of 40 CFR Part 60 (40 CFR Part 60.45(c)(2)). The span value for the CEMS shall be determined in accordance with the provisions contained in 40 CFR Part 60.45(c)(3) & (4).
- xi. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the NO_x concentration (in ppm), volumetric gas flow (in scfh), and NO_x mass emissions (in lb/MMBtu), as measured by the CEMS required in **A.4.b.x.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F.
- xii. Install, calibrate, operate and maintain a continuous opacity monitoring system to continuously measure and record the opacity from **S2.001**. The continuous opacity monitoring system will be installed at an appropriate location in the discharge stack of **S2.001** to accurately and continuously measure the opacity of **S2.001** in accordance with the requirements prescribed in NAC 445B.256 to NAC 445B.267 and 40 CFR Part 75.10.
- xiii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the opacity (in percent opacity) as measured by the continuous opacity monitoring system required in **A.4.b.xii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 75.10 and 40 CFR Part 75.14.



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
b. Monitoring (continued)

- xiv. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the issuance of this permit, **The Permittee** will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the baghouse controlling emissions from **S2.001**.
- (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from **S2.001** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure drop shall not exceed **11.5 inches of water** for the baghouse controlling emissions from **S2.001**. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in **xiv.(1) through (4)** above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping for each week, or part of the week that **S2.001** is operating:
 - (a) Results of the reading of the internal pressure drop across the baghouse controlling emissions from **S2.001**, each week that **S2.001** is in operation.
 - (b) Results of any excursions of the internal pressure drop across the baghouse and any corrective actions taken.
 - (c) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.001**, and any corrective actions taken.

c. Recordkeeping

The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.001** is operating:

- i. The total hourly quantity of sub-bituminous and/or bituminous coal (in tons) and the volume of natural gas (in scf) combusted, for each hour of operation based on the data recorded by the CDCS as required in **A.4.b.iii.** of this section.
- ii. The total daily hours of operation for the corresponding date.
- iii. The heat contents of each fuel combusted for the corresponding date, in Btu/ton (coal) and Btu/scf (natural gas). The heat contents of each fuel will be based on the gross calorific value determined in **A.4.b.v. and vi.** of this section.
- iv. The hourly heat inputs of the sub-bituminous and/or bituminous coal and/or natural gas combusted, in MMBtu per hour. The hourly heat inputs will be calculated from the hourly fuel usage rates recorded in **A.4.c.i.** of this section, and the heat contents of the fuel as recorded in **A.4.c.iii.** of this section.

Sample Calculation:

$(\text{tons-coal/hr})(\text{Btu/ton-coal}) = \text{Btu/hr or MMBtu/hr-coal}$

$(\text{scf/hr})(\text{Btu/scf}) = \text{Btu/hr or MMBtu/hr-natural gas}$

Sum:

$\text{MMBtu/hr-coal} + \text{MMBtu/hr-natural gas} = \text{Hourly Heat Input in MMBtu/hr}$



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
c. Recordkeeping (continued)

- v. The hourly emission rate of PM and PM₁₀ each, in pounds per MMBtu (lb/MMBtu). The hourly emission rates will be calculated from the hourly quantity of sub-bituminous and/or bituminous coal and/or natural gas determined in **A.4.b.i. and ii.** of this section, and the emission factor derived in **A.4.a.x.** of this section for coal combustion and emission factor (7.6 lb/10⁶ scf) as listed in AP-42, Table 1.4-2. for natural gas combustion.

Sample Calculation:

$$(\text{tons-coal/Btu})(\text{lb-PM/tons-coal}) = \text{lb-PM/Btu or lb-PM/MMBtu-coal}$$

$$(\text{scf natural gas/Btu})(7.6 \text{ lb}/10^6 \text{ scf}) = \text{lb-PM/Btu or lb-PM/MMBtu-natural gas}$$

Sum:

$$\text{lb-PM/MMBtu-coal} + \text{lb-PM/MMBtu-natural gas} = \text{Hourly Emission Rate in lb-PM/MMBtu}$$

- vi. The emission rates of sulfur and SO₂ each, in pounds per hour (lb/hr) and pounds per million Btu (lb/MMBtu) measured by the CEMS required in **A.4.b.viii.** of this section, for each averaging period described below:
- (1) The sulfur emissions in pounds per hour (lb/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (2) The sulfur and SO₂ emissions in pounds per million Btu (lb/MMBtu) for each 1-hour period. The conversion procedures established in 40 CFR Part 60.45(e) & (f) will be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu, 3-hour rolling average period and 1-day average period). Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (3) The total SO₂ emissions for a 10-day rolling average period (based on preceding last 10 days) in lb/MMBtu. The SO₂ emissions in lb/MMBtu for each 1-day average period recorded in **A.4.c.vi.(2)** will be used to calculate a 10-day rolling average period.
- vii. The emission rate of NO_x in pounds per million BTU (lb/MMBtu) on a 12-month rolling average measured by the CEMS required in **A.4.b.x.** of this section.
- viii. The hourly emission rate of CO in pounds per hour. The hourly emission rate will be calculated from the CO emission factor (lb-CO/MMBtu) determined in **A.4.a.x.(3)** of this section and hourly heat input (MMBtu/hr) determined in **A.4.c.iv.** of this section.

Sample Calculation:

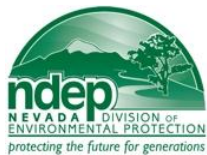
$$(\text{lb-CO/MMBtu})(\text{MMBtu/hr}) = (\text{lb-CO/hr})$$

- ix. The hourly emission rate of VOC in pounds per hour. The hourly emission rate will be calculated from the VOC emission factor (lb-VOC/MMBtu) determined in **A.4.a.x.(4)** of this section and hourly heat input (MMBtu/hr) determined in **A.4.c.iv.** of this section.

Sample Calculation:

$$(\text{lb-VOC/MMBtu})(\text{MMBtu/hr}) = (\text{lb-VOC/hr})$$

- x. The measured opacity (in percent opacity) from the continuous opacity monitoring system required in **A.4.b.xii.** of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:
- (1) Each 6-minute average as required in NAC 445B.22017.1(b) and as set forth in 40 CFR Part 60.13(h).



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Section VI. Specific Operating Conditions (continued)

A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

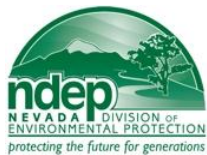
c. Recordkeeping (continued)

- x. The measured pressure drop across the baghouse for **S2.001** from the pressure drop monitoring device required in **A.4.b.xiv.(2)** of this section.
- xii. The inspection results and any corrective measures taken on the baghouse of **S2.001** as required in **A.4.b.xiv.(4)** of this section.

d. Reporting

***The Permittee* will:**

- i. Report all excess emissions as required in **Sections III.B and III.C.** of this operating permit.
- ii. Report all deviations as required in **Section V.C.** of this operating permit.
- iii. Report all excursions as required in **A.4.b.xiv.** of this operating permit.
- iv. Submit semi-annual monitoring reports as required in **Section V.C.** of this operating permit.
- v. Certify compliance with all applicable requirements as required in **Section V.E.** of this operating permit.
- vi. Report the results of the performance tests required in **A.4.a.** of this section.
- vii. **Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80)** - Submit a written report of excess emissions to the Administrator and the Director every calendar quarter. The report shall include:
 - (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.
 - (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported.
 - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - (4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
 - (5) Excess emissions shall be defined as any 3-hour rolling average period during which the average emissions of sulfur dioxide, as measured by the continuous monitoring system, exceeds the sulfur dioxide maximum limit in **A.2.a.vii.** of this section.
 - (6) ***The Permittee*** shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- viii. **Consent Decree Requirements**
The SO₂ excess emissions (lb/MMBtu) shall also be defined as any 10-day rolling average period during which the average emissions of sulfur dioxide, as measured by the continuous monitoring system, exceeds the sulfur dioxide maximum limit in **A.2.a.vi.** of this section.



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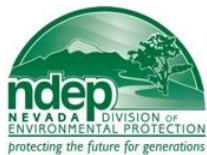
Section VI. Specific Operating Conditions (continued)

A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
d. Reporting (continued)

- ix. Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The following reporting requirements apply only to Section VIII of the PSD Permit issued 1/3/80:
The Regional Administrator (*USEPA*) shall be notified by telephone (*by The Permittee*) within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results an increase in emissions above any allowable emissions limit stated in Section VIII of the USEPA-issued PSD permit dated January 3, 1980 of these conditions. In addition the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under Section VIII of these conditions, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations, which such malfunction, may cause.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S2.002:

UTM: North 4,059,478 km, East 711,546 km (Zone 11)

System 02 Reid Gardner Unit #2 Steam Boiler, 100% Coal Fired with Natural Gas Igniters

S2.002 Steam Boiler, Foster Wheeler, Model #2-79-2106, Serial #08-6374, Manufactured July 1968. 1,215 million Btu/hr, Maximum Heat Input, Nominal 110.0 MW Output

SCC 10100202 (bituminous) and 10100222 (sub-bituminous)

Descriptive Stack Parameters

Stack Height: 240.0 ft

Stack Diameter: 12.61 ft

Stack Velocity: 66.69 ft/sec

Stack Temperature: 300.0 °F

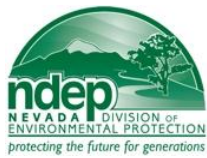
1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution EquipmentEmissions from **S2.002** shall be ducted to the following emissions control system with 100% capture and a maximum volume flow rate of **500,000** actual cubic feet per minute (ACFM):

- Low NO_x coal burners and over-fired air.
- Baghouse (Pulse-Jet Fabric Filter) for the control of PM.
- Soda ash wet scrubber (Flue Gas Desulfurization – FGD) for the control of SO₂.

The volumetric flow rate may be determined by utilizing Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate as referenced in 40 CFR Part 60, Appendix A.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission Limits

- On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits:
 - NAC 445B.2203 Federally Enforceable SIP Requirement – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.20 pound per million Btu**.
 - NAC 445B.305 Part 70 Program – The discharge of PM and PM₁₀ to the atmosphere will not exceed **0.08 pound per million Btu**.
 - NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of sulfur to the atmosphere will not exceed **729.0 pounds per hour**.
 - NAC 445B.22057 State-Only Requirement – The allowable emission of sulfur from fossil-fired power generating unit Number Two of the Nevada Power Company's Reid Gardner Station, located in air Quality Control Region 13, Basin 218, California Wash, must not be greater than **0.275 pound per million Btu**.
 - NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The discharge of SO₂ to the atmosphere will not exceed **0.55 pound per million Btu** (based on a 3-hour rolling average period).
 - NAC 445B.305 Consent Decree Requirements – The discharge of SO₂ to the atmosphere will not exceed **0.40 pound per million Btu** (based on a 10-day rolling average period).
 - NAC 445B.305 Part 70 Program – The discharge of SO₂ to the atmosphere will not exceed **0.37 pound per million Btu** (based on a 3-hour rolling average period).
 - NAC 445B.305 Part 70 Program – The discharge of NO_x (Oxides of Nitrogen) to the atmosphere will not exceed **0.46 pound per million Btu** (based on a 12-month rolling average).
 - NAC 445B.305 Part 70 Program – The discharge of CO (Carbon monoxide) to the atmosphere will not exceed **1,000 pounds per hour**.

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Section VI. Specific Operating Conditions (continued)**B. Emission Unit #S2.002 (continued)****2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)****Emission Limits (continued)**

- a. On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits: (continued)
 - x. NAC 445B.305 Part 70 Program – The discharge of VOC (Volatile Organic Compounds) to the atmosphere will not exceed **430 pounds per hour**.
 - xi. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from **S2.002** will not equal or exceed **20%**. The opacity must be determined as set forth in 445B.22017.1(a) or (b).

b. Specific Acid Rain Requirements Parts 72 - 78 Acid Rain Program

- i. **The Permittee** will not exceed the SO₂ and NO_x emission levels (acid rain allowances) for the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions and pursuant to 40 CFR 72.9:

| Calendar Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|-------|-------|-------|-------|-------|
| S2.002 SO₂ Phase II Allowance | 2,201 | 2,025 | 2,025 | 2,025 | 2,025 |
| S2.002 NO_x Emission Limit (lb/MMBtu) | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 |

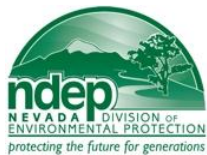
- ii. **The Permittee** will comply with the “Standard Requirements” provisions of the SO₂ acid rain permit application dated July 7, 2008 entitled “Phase II Permit Application” and all references contained therein, which is hereby incorporated by reference into this operating document (Attachment 1). [NAC 445B.305].

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program**Operating Parameters**

- a. **S2.002** will combust sub-bituminous and/or bituminous coal; and/or natural gas for purposes of startup, shutdown and/or flame stabilization **only**.
- b. **S2.002** may operate a total of **8,760 hours per calendar year**.
- c. The maximum operating heat input rate for **S2.002** while combusting sub-bituminous and/or bituminous coal and natural gas will not exceed **1,215 million Btu per any one-hour period**.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program**Compliance, Monitoring, Recordkeeping and Reporting****a. Compliance/Performance Testing**Within 180 days of the date of issuance of this operating permit, and once annually thereafter, **The Permittee** will:

- i. Conduct and record a Method 5 performance test for PM on the exhaust stack of **S2.002** consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch.
- ii. Conduct and record a Method 201A and 202 performance test for PM₁₀ on the exhaust stack of **S2.002** consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The Method 201A and 202 emissions tests may be replaced by a Method 5 performance test, including the back-half catch. All particulate captured in the Method 5 test will be considered PM₁₀ for compliance demonstration purposes.
- iii. Conduct and record a Method 6 or 6C performance test for SO₂ on the exhaust stack of **S2.002** consisting of three valid runs. The Method 6 or 6C emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 (PSD permit requirement VIII.B.2. issued January 3, 1980).



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Section VI. Specific Operating Conditions (continued)

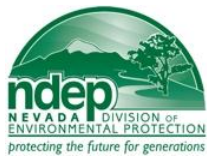
B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

a. Compliance/Performance Testing (continued)

- iv. Conduct and record a Method 7 or 7E performance test for NO_x on the exhaust stack of **S2.002** consisting of three valid runs. The Method 7 or 7E emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
- v. Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.002** consisting of three valid runs. The Method 10 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
- vi. Conduct and record a Method 25, 25A or 18 performance test for VOC on the exhaust stack of **S2.002** consisting of three valid runs. The Method 25, 25A or 18 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A or 18.
- vii. The performance tests will be conducted at the maximum operating heat input rate limit established in **B.3.c.** of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.3 & 4. **The Permittee** shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3). Should any anticipated major boiler overhaul(s) be scheduled to be performed, which coincide with the performance tests, the performance testing will be performed prior to the overhaul(s). If the performance testing cannot be performed prior to a major boiler overhaul, the testing will be performed as soon as practicable following the overhaul(s), but not earlier than 60 days following the overhaul.
- viii. **The Permittee** shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4).
- ix. During each performance test required in **B.4.a.i. through vi.** of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted.
 - (1) The emissions results of the Method 5 performance test for PM and the Method 201A and 202 performance test for PM₁₀ must be reported in lb/MMBtu.
 - (2) The emissions results of the Method 6 or 6C performance test for SO₂ must be converted to emissions of sulfur (both lb/hr and lb/MMBtu).
 - (3) The emission results of the Method 7 or 7E performance test for NO_x must be reported in lb/MMBtu.
 - (4) The emission results of the Method 10 performance test for CO must be reported in lb/MMBtu.
 - (5) The emission results of the Method 25, 25A or 18 performance test for VOC must be reported in lb/MMBtu.
- x. As a result of the most recent performance test performed in **B.4.a.i. and ii.** of this section, derive emission factors for each of the following:
 - (1) Pounds of PM per ton of coal (lb-PM/tons-coal).
 - (2) Pounds of PM₁₀ per ton of coal (lb-PM₁₀/tons-coal).
 - (3) Pounds of CO per Million British Thermal Units (lb-CO/MMBtu).
 - (4) Pounds of VOC per Million British Thermal Units (lb-VOC/MMBtu).These emissions factors will be based on the average of the 3 test runs.
- xi. Within 60 days after completing the performance tests contained in **B.4.a.** of this section, **The Permittee** shall furnish the director a written report of the results of the performance tests and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689 (NAC 445B.252.8).



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
a. Compliance/Performance Testing (continued)

xii. Within 180 days of issuance of this operating permit, and once every year thereafter, conduct the Relative Accuracy Test Audit (RATA) required to certify the performance of the:

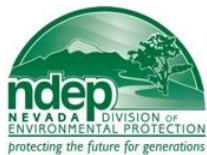
- (1) SO₂ CEMS described in **B.4.b.viii.** of this section
(2) NO_x CEMS described in **B.4.b.x.** of this section.

The annual RATAs must be conducted once every four-consecutive operating quarters. The RATAs must be done as prescribed in 40 CFR Part 60, Appendix F, and in accordance with the notification, protocol approval, and reporting requirements of NAC 445B.252 Testing and Sampling, and NAC 445B.259 Monitoring systems: Performance evaluations.

b. Monitoring

The Permittee, upon issuance of this operating permit will:

- i. Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of sub-bituminous and/or bituminous coal (in tons) combusted in **S2.002**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.002**.
- ii. Install, calibrate, operate and maintain a fuel flow meter to continuously record the volume (in standard cubic feet) of natural gas combusted in **S2.002**. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.002** in accordance with the requirements prescribed in 40 CFR Part 75.
- iii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of sub-bituminous and/or bituminous coal as measured by the coal mass measurement device and the quantity of natural gas (in standard cubic feet) as measured by the fuel flow meter as required in **B.4.b.i. and ii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.
- iv. Perform coal sampling of the coal prior to it entering the boiler. Sampling shall be conducted for moisture, ash, sulfur content, and gross calorific value. A coal analysis shall be performed weekly and the results of these analyses shall be retained for at least two years following the date of the measurement. All sample collection, sample preparation, and analyses performed or caused to be performed shall be conducted according to the most current ASTM methods (*PSD permit requirement VIII.E. issued January 3, 1980*).
- v. Perform coal sampling of the sub-bituminous and/or bituminous coal weekly according to section 12.5.3.2.2 in Method 19 in appendix A to Part 60 and use ASTM Method D2234-89, "Standard Test Methods for Collection of a Gross Sample of Coal." Determine the gross calorific value of the sub-bituminous and/or bituminous coal combusted by sampling at least once weekly, using ASTM D2013-86, "Standard Method of Preparing Coal Samples for Analysis", ASTM D2015-91, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter", ASTM 1989-92, "Standard test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters", or ASTM 3286-91a, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter."
- vi. Maintain on site, monthly analysis of calorific value of natural gas provided by natural gas supplier.
- vii. Substitute any missing fuel flow meter data in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D, Section 2.4.2.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring (continued)

- viii. Install, calibrate, operate and maintain a SO₂ continuous emissions monitor system (CEMS) (consisting of a SO₂ pollutant concentration monitor and a flow monitoring system) to continuously measure the concentration of SO₂ (in ppm), volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu) from **S2.002**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.002** to accurately and continuously measure the SO₂ concentration in **S2.002** in accordance with the requirements prescribed in 40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specification 2 (*PSD permit requirement VIII.D.2.a. issued January 3, 1980*), 40 CFR Part 75, Part 75.11 and Appendix F.
- ix. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the SO₂ concentration (in ppm), volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu) on 1-hour average period and SO₂ mass emissions (in lb/MMBtu) on 3-hour rolling average period and 1-day average period, as measured by the CEMS required in **B.4.b.viii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specification 2 (*PSD permit requirement VIII.D.2.a. issued January 3, 1980*), 40 CFR Part 75, Part 75.11 and Appendix F.
- x. Install, calibrate, operate and maintain a NO_x continuous emissions monitor system (CEMS) (consisting of a NO_x pollutant concentration monitor and a flow monitoring device) to continuously measure the concentration of NO_x (in ppm), volumetric gas flow (in scfh), and NO_x mass emissions (in lb/MMBtu) from **S2.002**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.002** to accurately and continuously measure the NO_x concentration in **S2.002** in accordance with the requirements prescribed in 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F. For performance evaluations under 40 CFR Part 60.13(c) and calibration checks under 60.13(d), Method 7 and 3B shall be used for the performance evaluations of nitrogen oxides (40 CFR Part 60.45(c)(1)). Nitric oxide shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B of 40 CFR Part 60 (40 CFR Part 60.45(c)(2)). The span value for the CEMS shall be determined in accordance with the provisions contained in 40 CFR Part 60.45(c)(3) & (4).
- xi. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the NO_x concentration (in ppm), volumetric gas flow (in scfh), and NO_x mass emissions (in lb/MMBtu), as measured by the CEMS required in **B.4.b.x.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F.
- xii. Install, calibrate, operate and maintain a continuous opacity monitoring system to continuously measure and record the opacity from **S2.002**. The continuous opacity monitoring system will be installed at an appropriate location in the discharge stack of **S2.002** to accurately and continuously measure the opacity of **S2.002** in accordance with the requirements prescribed in NAC 445B.256 to NAC 445B.267 and 40 CFR Part 75.10.
- xiii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the opacity (in percent opacity) as measured by the continuous opacity monitoring system required in **B.4.b.xii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 75.10 and 40 CFR Part 75.14.



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring (continued)

- xiv. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the issuance of this permit, **The Permittee** will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the baghouse controlling emissions from **S2.002**.
- (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from **S2.002** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure drop shall not exceed **11.5 inches of water** for the baghouse controlling emissions from **S2.002**. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in **xiv.(1) through (4)** above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping for each week, or part of the week that **S2.002** is operating:
 - (a) Results of the reading of the internal pressure drop across the baghouse controlling emissions from **S2.002**, each week that **S2.002** is in operation.
 - (b) Results of any excursions of the internal pressure drop across the baghouse and any corrective actions taken.
 - (c) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.002**, and any corrective actions taken.

c. Recordkeeping

The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.002** is operating under this operating scenario:

- i. The total hourly quantity of sub-bituminous and/or bituminous coal (in tons) and the volume of natural gas (in scf) combusted, for each hour of operation based on the data recorded by the CDCS as required in **B.4.b.iii.** of this section.
- ii. The total daily hours of operation for the corresponding date.
- iii. The heat contents of each fuel combusted for the corresponding date, in Btu/ton (coal) and Btu/scf (natural gas). The heat contents of each fuel will be based on the gross calorific value determined in **B.4.b.v. and vi.** of this section.
- iv. The hourly heat inputs of the sub-bituminous and/or bituminous coal and/or natural gas combusted, in MMBtu per hour. The hourly heat inputs will be calculated from the hourly fuel usage rates recorded in **B.4.c.i.** of this section, and the heat contents of the fuel as recorded in **B.4.c.iii.** of this section.

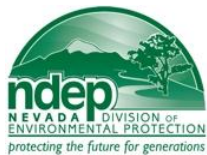
Sample Calculation:

$$(\text{tons-coal/hr})(\text{Btu/ton-coal}) = \text{Btu/hr or MMBtu/hr-coal}$$

$$(\text{scf/hr})(\text{Btu/scf}) = \text{Btu/hr or MMBtu/hr-natural gas}$$

Sum:

$$\text{MMBtu/hr-Coal} + \text{MMBtu/hr-natural gas} = \text{Hourly Heat Input in MMBtu/hr}$$



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
c. Recordkeeping (continued)

- v. The hourly emission rate of PM and PM₁₀ each, in pounds per MMBtu (lb/MMBtu). The hourly emission rates will be calculated from the hourly quantity of sub-bituminous and/or bituminous coal and/or natural gas determined in **B.4.b.i. and ii.** of this section, and the emission factor derived in **B.4.a.x.** of this section for coal combustion and emission factor (7.6 lb/10⁶ scf) as listed in AP-42, Table 1.4-2. for natural gas combustion.

Sample Calculation:

$$(\text{tons-coal/Btu})(\text{lb-PM/tons-coal}) = \text{lb-PM/Btu or lb-PM/MMBtu-coal}$$

$$(\text{scf natural gas/Btu})(7.6 \text{ lb/10}^6 \text{ scf}) = \text{lb-PM/Btu or lb-PM/MMBtu-natural gas}$$

Sum:

$$\text{lb-PM/MMBtu-Coal} + \text{lb-PM/MMBtu-natural gas} = \text{Hourly Emission Rate in lb-PM/MMBtu}$$

- vi. The emission rates of sulfur and SO₂ each, in pounds per hour (lb/hr) and pounds per million Btu (lb/MMBtu) measured by the CEMS required in **B.4.b.viii.** of this section, for each averaging period described below:
- (1) The sulfur emissions in pounds per hour (lb/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (2) The sulfur and SO₂ emissions in pounds per million Btu (lb/MMBtu) for each 1-hour period. The conversion procedures established in 40 CFR Part 60.45(e) & (f) will be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu, 3-hour rolling average period and 1-day average period). Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (3) The total SO₂ emissions for a 10-day rolling average period (based on preceding last 10 days) in lb/MMBtu. The SO₂ emissions in lb/MMBtu for each 1-day average period recorded in **B.4.c.vi.(2)** will be used to calculate a 10-day rolling average period.
- vii. The emission rate of NO_x in pounds per million BTU (lb/MMBtu) on a 12-month rolling average measured by the CEMS required in **B.4.b.x.** of this section.
- viii. The hourly emission rate of CO in pounds per hour. The hourly emission rate will be calculated from the CO emission factor (lb-CO/MMBtu) determined in **B.4.a.x.(3)** of this section and hourly heat input (MMBtu/hr) determined in **B.4.c.iv.** of this section.

Sample Calculation:

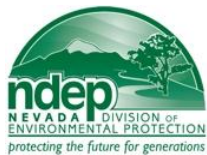
$$(\text{lb-CO/MMBtu})(\text{MMBtu/hr}) = (\text{lb-CO/hr})$$

- ix. The hourly emission rate of VOC in pounds per hour. The hourly emission rate will be calculated from the VOC emission factor (lb-VOC/MMBtu) determined in **B.4.a.x.(4)** of this section and hourly heat input (MMBtu/hr) determined in **A.4.c.iv.** of this section.

Sample Calculation:

$$(\text{lb-VOC/MMBtu})(\text{MMBtu/hr}) = (\text{lb-VOC/hr})$$

- x. The measured opacity (in percent opacity) from the continuous opacity monitoring system required in **B.4.b.xii.** of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:
- (1) Each 6-minute average as required in NAC 445B.22017.1(b) and as set forth in 40 CFR Part 60.13(h).



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**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

c. Recordkeeping (continued)

- xi. The measured pressure drop across the baghouse for **S2.002** from the pressure drop monitoring device required in **B.4.b.xiv.(2)** of this section.
- xii. The inspection results and any corrective measures taken on the baghouse of **S2.002** as required in **B.4.b.xiv.(4)** of this section.

d. Reporting

The Permittee will:

- i. Report all excess emissions as required in **Sections III.B and III.C.** of this operating permit.
- ii. Report all deviations as required in **Section V.C.** of this operating permit.
- iii. Report all excursions as required in **B.4.b.xiv.** of this operating permit.
- iv. Submit semi-annual monitoring reports as required in **Section V.C.** of this operating permit.
- v. Certify compliance with all applicable requirements as required in **Section V.E** of this operating permit.
- vi. Report the results of the performance tests and opacity observations required in **B.4.a.** of this section.
- vii. Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) - Submit a written report of excess emissions to the Administrator and the Director every calendar quarter. The report shall include:
 - (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.
 - (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported.
 - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - (4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
 - (5) Excess emissions shall be defined as any 3-hour rolling average period during which the average emissions of sulfur dioxide, as measured by the continuous monitoring system, exceeds the sulfur dioxide maximum limit in **B.2.a.vii.** of this section.
 - (6) *The Permittee* shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- viii. Consent Decree Requirements
The SO₂ (lb/MMBtu) excess emissions shall also be defined as any 10-day rolling average period during which the average emissions of sulfur dioxide, as measured by the continuous monitoring system, exceeds the sulfur dioxide maximum limit in **B.2.a.vi.**



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Section VI. Specific Operating Conditions (continued)

B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

d. Reporting (continued)

- ix. Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The following reporting requirements apply only to Section VIII of the PSD Permit issued 1/3/80:
The Regional Administrator (USEPA) shall be notified by telephone (*by The Permittee*) within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results an increase in emissions above any allowable emissions limit stated in Section VIII of the USEPA-issued PSD permit dated January 3, 1980 of these conditions. In addition the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under Section VIII of these conditions, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations, which such malfunction, may cause.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.



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CLASS I AIR QUALITY OPERATING PERMIT
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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003

UTM: North 4,059,420 km, East 711,562 km (Zone 11)

System 03 Reid Gardner Unit #3 Steam Boiler, 100% Coal Fired with Natural Gas Igniters

| | |
|---|---|
| S2.003 | Steam Boiler, Foster Wheeler, Model #279-1554, Serial #08-1544, Manufactured July 1976. 1,237 million Btu/hr, Maximum Heat Input, Nominal 110.0 MW Output |
| SCC 10100202 (bituminous) and 10100222 (sub-bituminous) | |

Descriptive Stack Parameters

Stack Height: 270.0 ft

Stack Diameter: 12.89 ft

Stack Velocity: 63.88 ft/sec

Stack Temperature: 300.0 °F

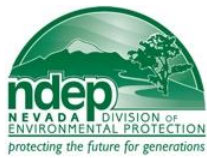
1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution EquipmentEmissions from **S2.003** shall be ducted to the following emissions control system with 100% capture and a maximum volume flow rate of **500,000** actual cubic feet per minute (ACFM):

- Low NO_x coal burners and over-fired air.
- Baghouse (Pulse-Jet Fabric Filter) for the control of PM.
- Soda ash wet scrubber (Flue Gas Desulfurization – FGD) for the control of SO₂.

The volumetric flow rate may be determined by utilizing Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate as referenced in 40 CFR Part 60, Appendix A.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission Limits

- On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.003**, the following pollutants in excess of the following specified limits:
 - 40 CFR Part 60.42(a)(1) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of **43 nanograms per joule heat input (0.10 lb per million Btu)**.
 - NAC 445B.2203 Federally Enforceable SIP Requirement – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.20 pound per million Btu**.
 - NAC 445B.305 Part 70 Program – The discharge of PM and PM₁₀ to the atmosphere will not exceed **0.08 pound per million Btu**.
 - NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of sulfur to the atmosphere will not exceed **737.3 pounds per hour**.
 - NAC 445B.22057 State-Only Requirement – The allowable emission of sulfur from fossil-fired power generating Unit Number Three of the Nevada Power Company's Reid Gardner Station, located in air Quality Control Region 13, Basin 218, California Wash, must not be greater than **0.275 pound per million Btu**.
 - 40 CFR Part 60.43(a)(2) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain sulfur dioxide in excess of **520 nanograms per joule heat input (1.2 lb per million Btu)**.
 - NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The discharge of SO₂ to the atmosphere will not exceed **0.55 pound per million Btu** (based on a 3-hour rolling average period).
 - NAC 445B.305 Consent Decree Requirements – The discharge of SO₂ to the atmosphere will not exceed **0.40 pound per million Btu** (based on a 10-day rolling average period).



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

a. Emission Limits (continued)

- ix. NAC 445B.305 Part 70 Program – The discharge of SO₂ to the atmosphere will not exceed **0.37 pound per million Btu** (based on a 3-hour rolling average period).
- x. 40 CFR Part 60.44(a)(3) Federally Enforceable NSPS Requirement - On and after the date on which the performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides, expressed as NO₂ in excess of **300 nanograms per joule heat input (0.70 lb per million Btu)**.
- xi. NAC 445B.305 Part 70 Program – The discharge of NO_x to the atmosphere will not exceed **0.46 pound per million Btu** (based on a 12-month rolling average period).
- xii. NAC 445B.305 Part 70 Program – The discharge of CO (Carbon monoxide) to the atmosphere will not exceed **1,200 pounds per hour**.
- xiii. NAC 445B.305 Part 70 Program – The discharge of VOC (Volatile Organic Compounds) to the atmosphere will not exceed **510 pounds per hour**.
- xiv. 40 CFR Part 60.42(a)(2) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than **20 percent** opacity except for one six-minute period per hour of not more than **27 percent** opacity.
- xv. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from **S2.003** will not equal or exceed **20%**. The opacity must be determined as set forth in 445B.22017.1(a) or (b). **S2.003** is allowed one 6-minute period per hour of not more than **27 percent** opacity as set forth in 40 CFR part 60.42(a)(2).

b. Specific Acid Rain Requirements Parts 72 - 78 Acid Rain Program

- i. **The Permittee** will not exceed the SO₂ and NO_x emission levels (acid rain allowances) for the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions and pursuant to 40 CFR 72.9:

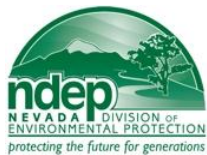
| Calendar Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|-------|-------|-------|-------|-------|
| S2.003 SO₂ Phase II Allowance | 2,124 | 1,968 | 1,968 | 1,968 | 1,968 |
| S2.003 NO_x Emission Limit (lb/MMBtu) | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 |

- ii. **The Permittee** will comply with the “Standard Requirements” provisions of the SO₂ acid rain permit application dated July 7, 2008 entitled “Phase II Permit Application” and all references contained therein, which is hereby incorporated by reference into this operating document (Attachment 1). [NAC 445B.305].

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. **S2.003** will combust sub-bituminous and/or bituminous coal; and/or natural gas for purposes of startup, shutdown and/or flame stabilization only.
- b. **S2.003** may operate a total of **8,760 hours per calendar year**.
- c. The maximum operating heat input rate for **S2.003** while combusting sub-bituminous and/or bituminous coal and natural gas will not exceed **1,237 million Btu per any one-hour period**.



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

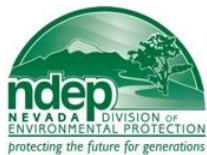
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance/Performance Testing

Within 180 days of the date of issuance of this operating permit, and once annually thereafter, **The Permittee** will:

- i. Conduct and record a Method 5 performance test for PM on the exhaust stack of **S2.003** consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). The probe and filter holder heating systems in the sampling train shall be set to provide an average gas temperature of 160+/- 14°C (320+/- 25°F). The emission rate correction factor, integrated or grab sampling and analysis procedure of Method 3B shall be used to determine the O₂ concentration (%O₂). The O₂ sample shall be obtained simultaneously with, and at the same traverse points as, the particulate sample. If the grab sampling procedure is used, the O₂ concentration for the run shall be the arithmetic mean of the sample O₂ concentrations at all traverse points. If the particulate run has more than 12 traverse points, the O₂ traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O₂ traverse points (40 CFR Part 60.46(b)(2)).
- ii. Conduct and record a Method 201A and 202 performance test for PM₁₀ on the exhaust stack of **S2.003** consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The Method 201A and 202 emissions tests may be replaced by the Method 5 performance test required in **C.4.a.i.** above. All particulate captured in the Method 5 test will be considered PM₁₀ for compliance demonstration purposes.
- iii. Conduct and record a Method 6 performance test for SO₂ on the exhaust stack of **S2.003** consisting of three valid runs. The Method 6 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6 (*PSD permit requirement VIII.B.2. issued January 3, 1980*). The sampling site shall be the same as that selected for the particulate sample required in **C.4.a.i.**. The sampling location in the duct shall be at the centroid of the cross section or at a point no closer to the walls than 1 m (3.28 ft). The sampling time and sample volume for each sample run shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Two samples shall be taken during a 1-hour period, with each sample taken within a 30-minute interval. The emission rate correction factor, integrated sampling and analysis procedure of Method 3B shall be used to determine the O₂ concentration (%O₂). The O₂ sample shall be taken simultaneously with, and at the same point as, the SO₂ sample. The SO₂ emission rate shall be computed for each pair of SO₂ and O₂ samples. The SO₂ emission rate (E) for each run shall be the arithmetic mean of the results of the two pairs of samples (40 CFR Part 60.46(b)(4)).
- iv. Conduct and record a Method 7 performance test for NO_x on the exhaust stack of **S2.003** consisting of three valid runs. The Method 7 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7. The sampling site and location shall be the same as for the SO₂ sample required in **C.4.a.iii.**. Each run shall consist of four grab samples, with each sample taken at about 15-minute intervals. For each NO_x sample, the emission rate correction factor, grab sampling and analysis procedure of Method 3B shall be used to determine the O₂ concentration (%O₂). The O₂ sample shall be taken simultaneously with, and at the same point as, the NO_x sample. The NO_x emission rate shall be computed for each pair of NO_x and O₂ samples. The NO_x emission rate (E) for each run shall be the arithmetic mean of the results of the four pairs of samples (40 CFR Part 60.46(b)(5)).
- v. Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.003** consisting of three valid runs. The Method 10 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
- vi. Conduct and record a Method 25, 25A or 18 performance test for VOC on the exhaust stack of **S2.003** consisting of three valid runs. The Method 25, 25A or 18 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A or 18.



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

a. Compliance/Performance Testing (continued)

- vii. During one of the three test runs required in **C.4.a.i.** of this section, conduct and record a Method 9 visual opacity observation of the discharge from the exhaust stack of **S2.003**. The Method 9 opacity test must be conducted in accordance with the visible emissions evaluation procedures contained in 40 CFR Part 60, Appendix A, Method 9. A certified visible emissions reader must conduct the visible emissions evaluations for a period of at least 6 minutes.
- viii. The performance tests will be conducted at the maximum operating heat input rate limit established in **C.3.c** of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.3 & 4. **The Permittee** shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3). Should any anticipated major boiler overhaul(s) be scheduled to be performed, which coincide with the performance tests, the performance testing will be performed prior to the overhaul(s). If the performance testing cannot be performed prior to a major boiler overhaul, the testing will be performed as soon as practicable following the overhaul(s), but not earlier than 60 days following the overhaul.
- ix. **The Permittee** shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4). The alternatives to the reference methods and procedures provided in 40 CFR Part 60.46(d) may be utilized to the extent that they are applicable to **S2.003**, and must be identified in the testing procedures as alternative methods.
- x. During each performance test required in **C.4.a.i. through vi.** of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted. The emissions results of the Method 6 and Method 7 performance tests for SO₂ and NO_x must be converted to emissions of sulfur (both lb/hr and lb/MMBtu) and emissions of nitrogen oxides (lb/MMBtu). The emissions results of the Method 5 performance test for PM and the Method 201A and 202 performance tests for PM₁₀ must be reported in lb/MMBtu. The emission rate (E) of particulate matter, SO₂, and NO_x shall be computed for each run using the following formula (40 CFR Part 60.46(b)(1)) or other alternate method pursuant 40 CFR Part 60.46:

$$E = C F_d (20.9)/(20.9 - \% O_2)$$

E = emission rate of pollutant, ng/J (lb/million Btu)

C = concentration of pollutant, ng/dscm (lb/dscf)

% O₂ = oxygen concentration, percent dry basis

F_d = factor as determined from Method 19.

The emission results of the Method 10 performance test for CO and the method 25, 25A or 18 performance test for VOC must be reported in lb/MMBtu.

- xi. As a result of the most recent performance test performed in **C.4.a.i., ii., v. and vi.** of this section, derive emission factors for each of the following:
 - (1) Pounds of PM per ton of coal (lb-PM/tons-coal)
 - (2) Pounds of PM₁₀ per ton of coal (lb-PM₁₀/tons-coal)
 - (3) Pounds of CO per Million British Thermal Units (lb-CO/MMBtu)
 - (4) Pounds of VOC per Million British Thermal Units (lb-VOC/MMBtu)These emissions factors will be based on the average of the 3 test runs.



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
a. Compliance/Performance Testing (continued)

xii. Within 60 days after completing the performance tests and opacity observations contained in **C.4.a.** of this section, **The Permittee** shall furnish the director a written report of the results of the performance tests, the opacity observations and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689 (NAC 445B.252.8).

xiii. Within 180 days of issuance of this operating permit, and once every year thereafter, conduct the Relative Accuracy Test Audit (RATA) required to certify the performance of the:

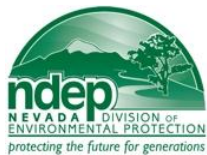
- (1) SO₂ CEMS described in **C.4.b.viii.** of this section
(2) NO_x CEMS described in **C.4.b.x.** of this section.

The annual RATAs must be conducted once every four-consecutive operating quarters. The RATAs must be done as prescribed in 40 CFR Part 60, Appendix F, and in accordance with the notification, protocol approval, and reporting requirements of NAC 445B.252 Testing and Sampling, and NAC 445B.259 Monitoring systems: Performance evaluations.

b. Monitoring

The Permittee, upon issuance of this operating permit will:

- i. Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of sub-bituminous and/or bituminous coal (in tons) combusted in **S2.003**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.003**.
- ii. Install, calibrate, operate and maintain a fuel flow meter to continuously record the volume (in standard cubic feet) of natural gas combusted in **S2.003**. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.003** in accordance with the requirements prescribed in 40 CFR Part 75.
- iii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of sub-bituminous and/or bituminous coal as measured by the coal mass measurement device and the quantity of natural gas (in standard cubic feet) as measured by the fuel flow meter as required in **C.4.b.i. and ii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.
- iv. Perform coal sampling of the coal prior to it entering the boiler. Sampling shall be conducted for moisture, ash, sulfur content, and gross calorific value. A coal analysis shall be performed weekly and the results of these analyses shall be retained for at least two years following the date of the measurement. All sample collection, sample preparation, and analyses performed or caused to be performed shall be conducted according to the most current ASTM methods (*PSD permit requirement VIII.E. issued January 3, 1980*).
- v. Perform coal sampling of the sub-bituminous and/or bituminous coal weekly according to section 12.5.3.2.2 in Method 19 in appendix A to Part 60 and use ASTM Method D2234-89, "Standard Test Methods for Collection of a Gross Sample of Coal." Determine the gross calorific value of the sub-bituminous and/or bituminous coal combusted by sampling at least once weekly, using ASTM D2013-86, "Standard Method of Preparing Coal Samples for Analysis", ASTM D2015-91, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter", ASTM 1989-92, "Standard test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters", or ASTM 3286-91a, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter."
- vi. Maintain on site, monthly analysis of calorific value of natural gas provided by natural gas supplier.
- vii. Substitute any missing fuel flow meter data in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D, Section 2.4.2.



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Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

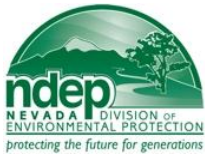
C. Emission Unit #S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring (continued)

- viii. Install, calibrate, operate and maintain a SO₂ continuous emissions monitor system (CEMS) (consisting of a SO₂ pollutant concentration monitor and a flow monitoring device) to continuously measure the concentration of SO₂ (in ppm), volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu) from **S2.003**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.003** to accurately and continuously measure the SO₂ concentration in **S2.003** in accordance with the requirements prescribed in 40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F. For performance evaluations under 40 CFR Part 60.13(c) and calibration checks under 60.13(d), Method 6 and 3B shall be used for the performance evaluations of sulfur dioxide (40 CFR Part 60.45(c)(1)). Sulfur dioxide shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B of 40 CFR Part 60 (40 CFR Part 60.45(c)(2)). The span value for the CEMS shall be determined in accordance with the provisions contained in 40 CFR Part 60.45(c)(3) & (4).
- ix. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the SO₂ concentration (in ppm), volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu) on 1-hour average period and SO₂ mass emissions (in lb/MMBtu) on 3-hour rolling average period and 1-day average period, as measured by the CEMS required in **C.4.b.viii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60.13 and 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specifications, 40 CFR Part 75, Part 75.11 and Appendix F.
- x. Install, calibrate, operate and maintain a NO_x continuous emissions monitor system (CEMS) (consisting of a NO_x pollutant concentration monitor and a flow monitoring device) to continuously measure the concentration of NO_x (in ppm), volumetric gas flow (in scfh), and NO_x mass emissions (in lb/MMBtu) from **S2.003**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.003** to accurately and continuously measure the NO_x concentration in **S2.003** in accordance with the requirements prescribed in 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F. For performance evaluations under 40 CFR Part 60.13(c) and calibration checks under 60.13(d), Method 7 and 3B shall be used for the performance evaluations of nitrogen oxides (40 CFR Part 60.45(c)(1)). Nitric oxide shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B of 40 CFR Part 60 (40 CFR Part 60.45(c)(2)). The span value for the CEMS shall be determined in accordance with the provisions contained in 40 CFR Part 60.45(c)(3) & (4).
- xi. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the NO_x concentration (in ppm), volumetric gas flow (in scfh), and NO_x mass emissions (in lb/MMBtu), as measured by the CEMS required in **C.4.b.x.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F.



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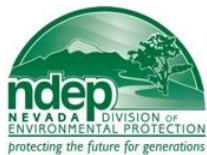
**CLASS I AIR QUALITY OPERATING PERMIT
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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
 - b. Monitoring (continued)
 - xii. Install, calibrate, operate and maintain a continuous opacity monitoring system to continuously measure and record the opacity from **S2.003**. The continuous opacity monitoring system will be installed at an appropriate location in the discharge stack of **S2.003** to accurately and continuously measure the opacity of **S2.003** in accordance with the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 1, and 40 CFR Part 75.10. For performance evaluations under 40 CFR Part 60.13(c) and calibration checks under 60.13(d), the span value for the continuous opacity monitoring system shall be 80, 90, or 100 percent (40 CFR Part 60.45(c) and 60.45(c)(3)).
 - xiii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the opacity (in percent opacity) as measured by the continuous opacity monitoring system required in **C.4.b.xii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.45(a), 40 CFR Part 60, Appendix B, Performance Specification 1, 40 CFR Part 75.10 and 40 CFR Part 75.14.
 - xiv. 40 CFR Part 64 Compliance Assurance Monitoring Program
On and after the issuance of this permit, **The Permittee** will:
 - (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the baghouse controlling emissions from **S2.003**.
 - (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from **S2.003** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
 - (3) The indicator range for the baghouse internal pressure drop shall not exceed **11.5 inches of water** for the baghouse controlling emissions from **S2.003**. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.
 - (4) Conduct and record a baghouse inspection on an annual basis.
 - (5) The required monitoring established in **xiv.(1) through (4)** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each week, or part of the week that **S2.003** is operating:
 - (a) Results of the reading of the internal pressure drop across the baghouse controlling emissions from **S2.003**, each week that **S2.003** is in operation.
 - (b) Results of any excursions of the internal pressure drop across the baghouse and any corrective actions taken.
 - (c) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.003**, and any corrective actions taken.



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
c. Recordkeeping

The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.003** is operating under this operating scenario:

- i. The total hourly quantity of sub-bituminous and/or bituminous coal (in tons) and the volume of natural gas (in scf) combusted, for each hour of operation based on the data recorded by the CDCS as required in **C.4.b.iii.** of this section.
- ii. The total daily hours of operation for the corresponding date.
- iii. The heat contents of each fuel combusted for the corresponding date, in Btu/ton (coal) and Btu/scf (natural gas). The heat contents of each fuel will be based on the gross calorific value determined in **C.4.b.v. and vi.** of this section.
- iv. The hourly heat inputs of the sub-bituminous and/or bituminous coal and/or natural gas combusted, in MMBtu per hour. The hourly heat inputs will be calculated from the hourly fuel usage rates recorded in **C.4.c.i.** of this section, and the heat contents of the fuel as recorded in **C.4.c.iii.** of this section.

Sample Calculation:

$$(\text{tons-coal/hr})(\text{Btu/ton-coal}) = \text{Btu/hr or MMBtu/hr-coal}$$

$$(\text{scf/hr})(\text{Btu/scf}) = \text{Btu/hr or MMBtu/hr-natural gas}$$

Sum:

$$\text{MMBtu/hr-coal} + \text{MMBtu/hr-natural gas} = \text{Hourly Heat Input in MMBtu/hr}$$

- v. The hourly emission rate of PM and PM₁₀ each, in pounds per MMBtu (lb/MMBtu). The hourly emission rates will be calculated from the hourly quantity of sub-bituminous and/or bituminous coal and/or natural gas determined in **C.4.b.i. and ii.** of this section, and the emission factor derived in **C.4.a.xi.** of this section for coal combustion and emission factor (7.6 lb/10⁶ scf) as listed in AP-42, Table 1.4-2. for natural gas combustion.

Sample Calculation:

$$(\text{tons-coal/Btu})(\text{lb-PM/tons-coal}) = \text{lb-PM/Btu or lb-PM/MMBtu-coal}$$

$$(\text{scf natural gas/Btu})(7.6 \text{ lb}/10^6 \text{ scf}) = \text{lb-PM/Btu or lb-PM/MMBtu-natural gas}$$

Sum:

$$\text{lb-PM/MMBtu-Coal} + \text{lb-PM/MMBtu-natural gas} = \text{Hourly Emission Rate in lb-PM/MMBtu}$$

- vi. The emission rates of sulfur and SO₂ each, in pounds per hour (lb/hr) and pounds per million Btu (lb/MMBtu) measured by the CEMS required in **C.4.b.viii.** of this section, for each averaging period described below:
 - (1) The sulfur emissions in pounds per hour (lb/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (2) The sulfur and SO₂ emissions in pounds per million Btu (lb/MMBtu) for each 1-hour period. The conversion procedures established in 40 CFR Part 60.45(e) & (f) will be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu, 3-hour rolling average period and 1-day average period). Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (3) The total SO₂ emissions for a 10-day rolling average period (based on preceding last 10 days) in lbs/MMBtu. The SO₂ emissions in lb/MMBtu for each 1-day average period recorded in **C.4.c.vi.(2)** will be used to calculate a 10-day rolling average period.



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
c. Recordkeeping (continued)

vii. The hourly emissions rate of NO_x in pounds per million Btu (lb/MMBtu) for each 1-hour period measured by the CEMS required in **C.4.b.x.** of this section. The conversion procedures established in 40 CFR Part 60.45(e) & (f) will be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu, 3-hour rolling average).

viii. The hourly emission rate of CO in pounds per hour. The hourly emission rate will be calculated from the CO emission factor (lb-CO/MMBtu) determined in **C.4.a.xi.(3)** of this section and hourly heat input (MMBtu/hr) determined in **C.4.c.iv.** of this section.

Sample Calculation:

$$(\text{lb-CO/MMBtu})(\text{MMBtu/hr}) = (\text{lb-CO/hr})$$

ix. The hourly emission rate of VOC in pounds per hour. The hourly emission rate will be calculated from the VOC emission factor (lb-VOC/MMBtu) determined in **C.4.a.xi.(4)** of this section and hourly heat input (MMBtu/hr) determined in **C.4.c.iv.** of this section.

Sample Calculation:

$$(\text{lb-VOC/MMBtu})(\text{MMBtu/hr}) = (\text{lb-VOC/hr})$$

x. The measured opacity (in percent opacity) from the continuous opacity monitoring system required in **C.4.b.xii.** of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:

- (1) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in NAC 445B.22017.1(b) and as set forth in 40 CFR Part 60.13(h).
- (2) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in 40 CFR Part 60.42(a)(2).

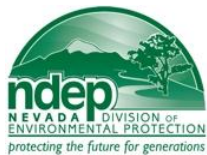
xi. The measured pressure drop across the baghouse for **S2.003** from the pressure drop monitoring device required in **C.4.b.xiv.(2)** of this section.

xii. The inspection results and any corrective measures taken on the baghouse of **S2.003** as required in **C.4.b.xiv.(4)** of this section.

d. Reporting

The Permittee will:

- i. Report all excess emissions as required in **Sections III.B and III.C.** of this operating permit.
- ii. Report all deviations as required in **Section V.C.** of this operating permit.
- iii. Report all excursions as required in **C.4.b.xiv.** of this operating permit.
- iv. Submit semi-annual monitoring reports as required in **Section V.C.** of this operating permit.
- v. Certify compliance with all applicable requirements as required in **Section V.E.** of this operating permit.
- vi. Report the results of the performance tests and opacity observations required in **C.4.a.xii.** of this section.



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Section VI. Specific Operating Conditions (continued)

C. Emission Unit #S2.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

d. Reporting (continued)

vii. Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) - Submit a written report of excess emissions to the Administrator and the Director every calendar quarter. The report shall include:

- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.
- (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- (5) Excess emissions shall be defined as any 3-hour rolling average period during which the average emissions of sulfur dioxide, as measured by the continuous monitoring system, exceeds the sulfur dioxide maximum limit in **C.2.a.vii.** of this section.
- (6) **The Permittee** shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

viii. Consent Decree Requirements

The SO₂ (lb/MMBtu) excess emissions shall also be defined as any 10-day rolling average period during which the average emissions of sulfur dioxide, as measured by the continuous monitoring system, exceeds the sulfur dioxide maximum limit in **C.2.a.viii.**

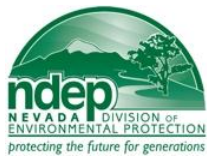
ix. Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The following reporting requirements apply only to Section VIII of the PSD Permit issued 1/3/80:

The Regional Administrator (USEPA) shall be notified by telephone (by The Permittee) within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results an increase in emissions above any allowable emissions limit stated in Section VIII of the USEPA-issued PSD permit dated January 3, 1980 of these conditions. In addition the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under Section VIII of these conditions, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations, which such malfunction, may cause.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.



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Section VI. Specific Operating Conditions (continued)

D. Emission Unit #S2.004

UTM: North 4,059.298 km, East 711.629 km (Zone 11)

System 04 Reid Gardner Unit #4 Steam Boiler, 100% Coal Fired with Natural Gas Igniters

| | |
|--------|---|
| S2.004 | Steam Boiler, Foster Wheeler, Model # Custom Built, Serial # 12A6361-1, Unit Manufactured July 1983. 2,956 million Btu/hr, Maximum Heat Input, Nominal 295.0 MW Output SCC 10100202 (bituminous) and 10100222 (sub-bituminous) |
|--------|---|

Descriptive Stack Parameters

Stack Height: 500 ft

Stack Diameter: 21.194 ft

Stack Velocity: 54.99 ft/sec

Stack Temperature: 140-150 °F

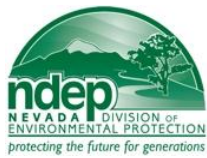
1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution EquipmentEmissions from **S2.004** shall be ducted to the following emissions control system with 100% capture and a maximum volume flow rate of **1,164,000** actual cubic feet per minute (ACFM):

- Low NO_x coal burners and over-fired air.
- Rotating Opposed Fired Air (ROFA) combustion system for the control of NO_x emissions. ROFA system will be maintained and operated in accordance with standard facility work practices.
- Twin parallel baghouse filtration systems for the control of particulate matter Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80).
- Sodium carbonate wet spray scrubbing system for the control of sulfur dioxide Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80).

The volumetric flow rate may be determined by utilizing Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate as referenced in 40 CFR Part 60, Appendix A.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission Limits

- On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.004**, the following pollutants in excess of the following specified limits:
 - NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The discharge of PM (particulate matter) to the atmosphere will not exceed **0.03 pound per million Btu**.
 - 40 CFR Part 60.42Da(a) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain particulate matter in excess of **13 nanograms per joule (0.03 lb per million Btu)** heat input derived from the combustion of solid fuel and 1 percent of the potential combustion concentration (99 percent reduction) when combusting solid fuel.
 - NAC 445B.2203 Federally Enforceable SIP Requirement – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.16 pound per million Btu**.
 - NAC 445B.305 Part 70 Program – The discharge of PM and PM₁₀ to the atmosphere will not exceed **0.03 pound per million Btu**.
 - NAC 445B.22047 Federally Enforceable SIP Requirement – The discharge of sulfur to the atmosphere will not exceed **1,773.6 pounds per hour**.
 - NAC 445B.2206 State-Only Requirement – The allowable emission of sulfur from fossil-fired power generating Unit Number Four of Nevada Power Company's Reid Gardner Station, located in air Quality Control Region 13, Basin 218, California Wash, must not be greater than **0.145 pound per million Btu**. The efficiency of the capture of sulfur must be maintained at a minimum of 85 percent, based on a 30-day rolling average.



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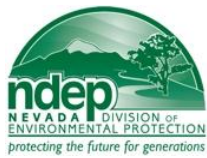
Section VI. Specific Operating Conditions (continued)

D. Emission Unit #S2.004 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

a. Emission Limits (continued)

- vii. NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) - The discharge of SO₂ to the atmosphere will not exceed **0.29 pound per million Btu** (based on a 30-day rolling average period).
- viii. 40 CFR Part 60.43Da(a) Federally Enforceable NSPS Requirement - On and after the date on which the initial performance test required to be conducted under Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility which combusts solid fuel, any gases which contain sulfur dioxide in excess of **520 nonograms per joule (1.20 lb per million Btu)** heat input and 10 percent of the potential combustion concentration (90 percent reduction), or 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than **260 nonograms per joule (0.60 lb per million Btu)** heat input. Compliance with the emission limitation and percent reduction requirements under this section are both determined on a 30-day rolling average basis (40 CFR Part 60.43Da(g)).
- ix. NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) - The discharge of NO₂ to the atmosphere will not exceed **0.5 pound per million Btu** while firing sub-bituminous coal.
- x. NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) - The discharge of NO₂ to the atmosphere will not exceed **0.6 pound per million Btu** while firing bituminous coal.
- xi. 40 CFR Part 60.44Da(a) Federally Enforceable NSPS Requirement - On and after the date on which the initial performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which contain nitrogen oxides (expressed as NO_x) in excess of the following emission limits, based on a 30-day rolling average:
 - (1) Solid fuels:
 - Sub-bituminous Coal **210 ng/J (0.50 lb/million Btu)**
 - Bituminous Coal **260 ng/J (0.60 lb/million Btu)**
 - (2) NO_x reduction requirement
 - Solid fuels 65 percent reduction of potential combustion concentration
- xii. NAC 445B.305 Part 70 Program – The discharge of NO_x to the atmosphere will not exceed **0.46 pound per million Btu** (based on a 12-month rolling average period).
- xiii. NAC 445B.305 Part 70 Program – The discharge of CO (Carbon monoxide) to the atmosphere will not exceed **12,000 pounds per hour**.
- xiv. NAC 445B.305 Part 70 Program – The discharge of VOC (Volatile Organic Compounds) to the atmosphere will not exceed **910 pounds per hour**.
- xv. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from **S2.004** will not equal or exceed 20%. The opacity must be determined as set forth in 445B.22017.1(a) or (b). **S2.004** is allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR part 60.42Da(b).
- xvi. 40 CFR Part 60.42Da(b) Federally Enforceable New Source Performance Standard Requirement - On and after the date the particulate matter performance test required to be conducted by Sec. 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any gases which exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.



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CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS

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Section VI. Specific Operating Conditions (continued)D. Emission Unit #S2.004 (continued)2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)b. Specific Acid Rain Requirements Parts 72 - 78 Acid Rain Program

- i. **The Permittee** will not exceed the SO₂ emission levels (acid rain allowances) for the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions and pursuant to 40 CFR 72.9:

| Calendar Year | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|-------|-------|-------|-------|-------|
| S2.004 SO₂ Phase II Allowance | 2,813 | 2,342 | 2,342 | 2,342 | 2,342 |
| S2.004 NO_x Emission Limit (lb/MMBtu) | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 |

- ii. **The Permittee** will comply with the “Standard Requirements” provisions of the SO₂ acid rain permit application dated July 7, 2008 entitled “Phase II Permit Application” and all references contained therein, which is hereby incorporated by reference into this operating document (Attachment 1). [NAC 445B.305].

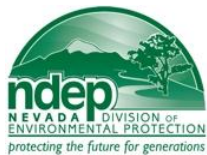
3. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramOperating Parameters

- a. **S2.004** will combust sub-bituminous and/or bituminous coal; and/or natural gas for purposes of startup, shutdown and/or flame stabilization only.
- b. **S2.004** may operate a total of **8,760 hours per calendar year**.
- c. The maximum operating heat input rate for **S2.004** while combusting sub-bituminous and/or bituminous coal and natural gas will not exceed **2,956 million Btu per any one-hour period**.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reportinga. Compliance/Performance Testing

Within 180 days of the date of issuance of this operating permit, and once annually thereafter, **The Permittee** will:

- i. Conduct and record a Method 5 performance test for PM on the exhaust stack of **S2.004** consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch. Compliance with the particulate matter standards contained in **D.2.a.i. through iv.** shall be determined by using the dry basis F factor (O₂) procedures in Method 19 to compute the emissions rate. Method 5B shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of 160+/- 14°C (320+/- 25°F). For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O₂ concentration. The O₂ sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O₂ traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O₂ traverse points (40 CFR Part 60.50Da(b)).
- ii. Conduct and record a Method 201A and 202 performance test for PM₁₀ on the exhaust stack of **S2.004** consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The Method 201A and 202 emissions tests may be replaced by the Method 5 performance test required in **D.4.a.i.** above. All particulate captured in the Method 5 test will be considered PM₁₀ for compliance demonstration purposes.
- iii. Conduct and record a Method 6 performance test for SO₂ on the exhaust stack of **S2.004** consisting of three valid runs. The Method 6 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 6.



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**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

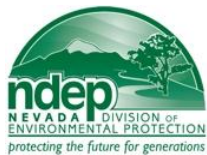
D. Emission Unit #S2.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

a. Compliance/Performance Testing (continued)

- iv. Conduct and record a Method 7 performance test for NO_x on the exhaust stack of **S2.004** consisting of three valid runs. The Method 7 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7.
- v. Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.004** consisting of three valid runs. The Method 10 emission s test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
- vi. Conduct and record a Method 25, 25A or 18 performance test for VOCs on the exhaust stack of **S2.004** consisting of three valid runs. The Method 25, 25A or 18 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A or 18.
- vii. During one of the three test runs required in **D.4.a.i.** of this section, conduct and record a Method 9 visual opacity observation of the discharge from the exhaust stack of **S2.004**. The Method 9 opacity test must be conducted in accordance with the visible emissions evaluation procedures contained in 40 CFR Part 60, Appendix A, Method 9. A certified visible emissions reader must conduct the visible emissions evaluations for a period of at least 6 minutes.
- viii. The performance tests will be conducted at the maximum operating heat input rate limit established in **D.3.c.** of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.3 & 4. **The Permittee** shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3). Should any anticipated major boiler overhaul(s) be scheduled to be performed, which coincide with the performance tests, the performance testing will be performed prior to the overhaul(s). If the performance testing cannot be performed prior to a major boiler overhaul, the testing will be performed as soon as practicable following the overhaul(s), but not earlier than 60 days following the overhaul.
- ix. **The Permittee** shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4). The alternative to the reference methods and procedures provided in 40 CFR Part 60.50Da(e) may be utilized to the extent that they are applicable to **S2.004**, and must be identified in the testing procedures as alternative methods.
- x. During each performance test required in **D.4.a.i. through vi.** of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted. The emissions results of the Method 6 and Method 7 performance tests for SO₂ and NO_x must be converted to emissions of sulfur (both lb/hr and lb/MMBtu) and emissions of nitrogen oxides (lb/MMBtu). The emissions results of the Method 5 or Method 201A and 202 performance test for PM₁₀ must be reported in lb/MMBtu. The emission results of the Method 10 performance test for CO and the Method 25, 25A or 18 performance test for VOC must be reported in lb/MMBtu.
- xi. As a result of the most recent performance test performed in **D.4.a.i., ii., v. and vi.** of this section, derive emission factors for each of the following:
 - (1) Pounds of PM per ton of coal (lb-PM/tons-coal).
 - (2) Pounds of PM₁₀ per ton of coal (lb-PM₁₀/tons-coal).
 - (3) Pounds of CO per Million British Thermal Units (lb-CO/MMBtu).
 - (4) Pounds of VOC per Million British Thermal Units (lb-VOC/MMBtu)These emissions factors will be based on the average of the 3 test runs.



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Section VI. Specific Operating Conditions (continued)

D. Emission Unit #S2.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

a. Compliance/Performance Testing (continued)

xii. Within 60 days after completing the performance tests and opacity observations contained in **D.4.a.** of this section, **The Permittee** shall furnish the director a written report of the results of the performance tests, the opacity observations and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689 (NAC 445B.252.8).

xiii. Within 180 days of issuance of this operating permit, and once every year thereafter, conduct the Relative Accuracy Test Audit (RATA) required to certify the performance of the:

(1) SO₂ CEMS described in **D.4.b.viii.** of this section

(2) NO_x CEMS described in **D.4.b.x.** of this section.

The annual RATAs must be conducted once every four-consecutive operating quarters. The RATAs must be done as prescribed in 40 CFR Part 60, Appendix F, and in accordance with the notification, protocol approval, and reporting requirements of NAC 445B.252 Testing and Sampling, and NAC 445B.259 Monitoring systems: Performance evaluations.

b. Monitoring

The Permittee, upon issuance of this operating permit will:

i. Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of sub-bituminous and/or bituminous coal (in tons) combusted in **S2.004**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.004**.

ii. Install, calibrate, operate and maintain a fuel flow meter to continuously record the volume (in standard cubic feet) of natural gas combusted in **S2.004**. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.004** in accordance with the requirements prescribed in 40 CFR Part 75.

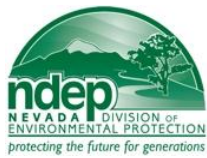
iii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of sub-bituminous and/or bituminous coal as measured by the coal mass measurement device and the quantity of natural gas (in standard cubic feet) as measured by the fuel flow meter as required in **D.4.b.i. and ii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.

iv. Perform coal sampling of the coal prior to it entering the boiler. Sampling shall be conducted for moisture, ash, sulfur content, and gross calorific value. A coal analysis shall be performed weekly and the results of these analyses shall be retained for at least two years following the date of the measurement. All sample collection, sample preparation, and analyses performed or caused to be performed shall be conducted according to the most current ASTM methods (*PSD permit requirement VIII.E. issued January 3, 1980*).

v. Perform coal sampling of the sub-bituminous and/or bituminous coal weekly according to section 12.5.3.2.2 in Method 19 in appendix A to Part 60 and use ASTM Method D2234-89, "Standard Test Methods for Collection of a Gross Sample of Coal." Determine the gross calorific value of the sub-bituminous and/or bituminous coal combusted by sampling at least once weekly, using ASTM D2013-86, "Standard Method of Preparing Coal Samples for Analysis", ASTM D2015-91, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter", ASTM 1989-92, "Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters", or ASTM 3286-91a, "Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter."

vi. Maintain on site, monthly analysis of calorific value of natural gas provided by natural gas supplier.

vii. Substitute any missing fuel flow meter data in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D, Section 2.4.2.



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Section VI. Specific Operating Conditions (continued)

D. Emission Unit #S2.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring (continued)

- viii. Install, calibrate, operate and maintain a SO₂ continuous emissions monitor system (CEMS) (consisting of a SO₂ pollutant concentration monitor and a flow monitoring device) to continuously measure the concentration and percent reduction of SO₂ (in ppm), percent reduction, volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu) from **S2.004**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.004** to accurately and continuously measure the SO₂ concentration in **S2.004** in accordance with the requirements prescribed in 40 CFR Part 60.49Da(b), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F. SO₂ emissions are monitored at both the inlet and outlet of the sulfur dioxide control device. The procedures established in 40 CFR Part 60.49Da shall be used to conduct monitoring system performance evaluations.
- ix. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the SO₂ concentration (in ppm), SO₂ percent reduction, volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr and lb/MMBtu), as measured by the CEMS required in **D.4.b.(8)** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60.49Da, 40 CFR Part 60, Appendix B, Performance Specifications, 40 CFR Part 75, Part 75.11 and Appendix F.
- x. Install, calibrate, operate and maintain a NO_x continuous emissions monitor system (CEMS) (consisting of a NO_x pollutant concentration monitor and a flow monitoring device) to continuously measure the concentration of NO_x (in ppm), volumetric gas flow (in scfh), and NO_x emissions rate (in lb/MMBtu) from **S2.004**. The CEMS will be installed at an appropriate location in the exhaust stack of **S2.004** to accurately and continuously measure the NO_x concentration in **S2.004** in accordance with the requirements prescribed in 40 CFR Part 60.49Da(c), 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F. The NO_x CEMS installed to meet the requirements of 40 CFR Part 75 may be used to meet the requirements of 40 CFR Part 60.49Da(c). The requirements established in 60.51Da continue to apply, except that **The Permittee** shall also meet the requirements of 40 CFR Part 60.51Da shall not include data substituted using the missing data procedures in subpart D of 40 CFR Part 75, or shall the data have been bias adjusted according to the procedures of 40 CFR Part 75. The procedures established in 40 CFR Part 60.49Da shall be used to conduct monitoring system performance evaluations.
- xi. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the NO_x concentration (in ppm), volumetric gas flow (in scfh), and NO_x emissions rate (in lb/MMBtu), as measured by the CEMS required in **D.4.b.x.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in 40 CFR Part 60, Appendix B, Performance Specification 2, 40 CFR Part 75, Part 75.11 and Appendix F.
- xii. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide, nitrogen oxides, or carbon monoxide emissions are monitored (40 CFR Part 60.49Da(d)).
- xiii. Install, calibrate, operate and maintain a continuous opacity monitoring system to continuously measure and record the opacity from **S2.004**. The continuous opacity monitoring system will be installed at an appropriate location in the discharge stack of **S2.004** to accurately and continuously measure the opacity of **S2.004** in accordance with the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.49Da(a), 40 CFR Part 60, Appendix B, Performance Specification 1, and 40 CFR Part 75.10. If opacity interference due to water droplets exists in the stack, the opacity is monitored upstream of the interference.



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Section VI. Specific Operating Conditions (continued)

D. Emission Unit #S2.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring (continued)

xiv. Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the opacity (in percent opacity) as measured by the continuous opacity monitoring system required in **D.4.b.xiii.** of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.49Da(a), 40 CFR Part 60, Appendix B, Performance Specification 1, 40 CFR Part 75.10 and 40 CFR Part 75.14.

xv. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the issuance of this permit, **The Permittee** will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure drop across the baghouse controlling emissions from **S2.004**.
- (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from **S2.004** at least once every 24 hours. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure drop shall not exceed **11.5 inches of water** for the baghouse controlling emissions from **S2.004**. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in **xv.(1) through (4)** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each week, or part of the week that **S2.004** is operating:
 - (a) Results of the reading of the internal pressure drop across the baghouse controlling emissions from **S2.004**, each week that **S2.004** is in operation.
 - (b) Results of any excursions of the internal pressure drop across the baghouse and any corrective actions taken.
 - (c) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.004**, and any corrective actions taken.

c. Recordkeeping

The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.004** is operating under this operating scenario:

- i. The total hourly quantity of sub-bituminous and/or bituminous coal (in tons) and the volume of natural gas (in scf) combusted, for each hour of operation based on the data recorded by the CDCS as required in **D.4.b.xiii.** of this section.
- ii. The total daily hours of operation for the corresponding date.
- iii. The heat contents of each fuel combusted for the corresponding date, in Btu/ton (coal) and Btu/scf (natural gas). The heat contents for each fuel will be based on the gross calorific value determined in **D.4.b.v. and vi.** of this section.
- iv. The hourly heat inputs of the sub-bituminous and/or bituminous coal and/or natural gas combusted, in MMBtu per hour. The hourly heat inputs will be calculated from the hourly fuel usage rates recorded in **D.4.c.i.** of this section, and the heat contents of the fuel as recorded in **D.4.c.xiii.** of this section.

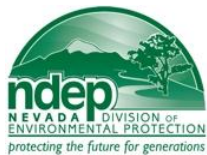
Sample Calculation:

$$(\text{tons-coal/hr})(\text{Btu/ton-coal}) = \text{Btu/hr or MMBtu/hr-coal}$$

$$(\text{scf/hr})(\text{Btu/scf}) = \text{Btu/hr or MMBtu/hr-natural gas}$$

Sum:

$$\text{MMBtu/hr-coal} + \text{MMBtu/hr-natural gas} = \text{Hourly Heat Input in MMBtu/hr}$$



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Section VI. Specific Operating Conditions (continued)

D. Emission Unit #S2.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

c. Recordkeeping (continued)

- v. The hourly emission rate of PM and PM₁₀ each, in pounds per MMBtu (lb/MMBtu). The hourly emission rates will be calculated from the hourly quantity of sub-bituminous and/or bituminous coal and/or natural gas determined in **D.4.b.i. and ii.** of this section, and the emission factor derived in **D.4.a.xi.** of this section for coal combustion and emission factor (7.6 lb/10⁶ scf) listed in AP-42, Table 1.4-2. for natural gas combustion.

Sample Calculation:

$$(\text{tons-coal/Btu})(\text{lb/tons-coal}) = \text{lb-PM/Btu or lb-PM/MMBtu-coal}$$

$$(\text{scf natural gas/Btu})(7.6 \text{ lb/10}^6 \text{ scf}) = \text{lb-PM/Btu or lb-PM/MMBtu-natural gas}$$

Sum:

$$\text{lb-PM/MMBtu-coal} + \text{lb-PM/MMBtu-natural gas} = \text{Hourly Emission Rate in lb-PM/MMBtu}$$

- vi. The emission rates of sulfur and SO₂ each, in pounds per hour (lb/hr) and pounds per million Btu (lb/MMBtu) measured by the CEMS required in **D.4.b.viii.** of this section, for each averaging period described below:
- (1) The sulfur emissions in pounds per hour (lb/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO₂ emissions measured.
 - (2) The Sulfur and SO₂ emissions in pounds per million Btu (lb/MMBtu) and the percent reduction levels for each 30-day rolling average period. The compliance determination procedures established in 40 CFR Part 60.50Da(c) will be used to convert the continuous monitoring data into units of the applicable standards (lb/MMBtu, 30-day rolling average period and percent reduction).
- vii. The hourly emission rate of CO in pounds per hour. The hourly emission rate will be calculated from the CO emission factor (lb-CO/MMBtu) determined in **D.4.a.xi.(3)** of this section and hourly heat input (MMBtu/hr) determined in **D.4.c.iv.** of this section.

Sample Calculation:

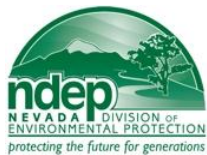
$$(\text{lb-CO/MMBtu})(\text{MMBtu/hr}) = (\text{lbs-CO/hr})$$

- viii. The hourly emission rate of VOC in pounds per hour. The hourly emission rate will be calculated from the VOC emission factor (lb-VOC/MMBtu) determined in **D.4.a.xi.(4)** of this section and hourly heat input (MMBtu/hr) determined in **D.4.c.iv.** of this section.

Sample Calculation:

$$(\text{lb-VOC/MMBtu})(\text{MMBtu/hr}) = (\text{lb-VOC/hr})$$

- ix. The hourly emissions rate of NO_x in pounds per million Btu (lb/MMBtu) and the percent reduction levels for each 30-day rolling average period measured by the CEMS required in **D.4.b.x.** of this section. The compliance determination procedures established in 40 CFR Part 60.50Da(d) will be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu, 30-day rolling average period and percent reduction).
- x. The measured opacity (in percent opacity) from the continuous opacity monitoring system required in **D.4.b.xiii.** of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:
- (1) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in NAC 445B.22017.1(b) and as set forth in 40 CFR Part 60.13(h).
 - (2) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in 40 CFR Part 60.42Da(b).



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Section VI. Specific Operating Conditions (continued)

D. Emission Unit #S2.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

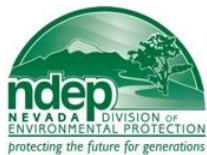
c. Recordkeeping (continued)

- xi. The measured pressure drop across the baghouse for **S2.004** from the pressure drop monitoring device required in **D.4.b.xv.(2)** of this section.
- xii. The inspection results and any corrective measures taken on the baghouse of **S2.004** as required in **D.4.b.xv.(4)** of this section.

d. Reporting

The Permittee will:

- i. Report all excess emissions as required in **Sections III.B and III.C.** of this operating permit.
- ii. Report all deviations as required in **Section V.C.** of this operating permit.
- iii. Report all excursions as required in **D.4.b.xv.** of this operating permit.
- iv. Submit semi-annual monitoring reports as required in **Section V.C.** of this operating permit.
- v. Certify compliance with all applicable requirements as required in **Section V.E.** of this operating permit.
- vi. Report the results of the performance tests and opacity observations required in **D.4.a.xii.** of this section.
- vii. Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) - Submit a written report of excess emissions to the Administrator and the Director every calendar quarter. The report shall include:
 - (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions.
 - (2) Specific identification of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions. The nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted shall also be reported.
 - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
 - (4) When no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information shall be stated in the report.
 - (5) Reid Gardner Unit #4 is subject to the federal regulations entitled “Standards of Performance for New Stationary Sources” (40 CFR Part 60). Nevada Power Company shall comply with all requirements of Subpart Da of this regulation.
 - (6) **The Permittee** shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- viii. Federally Enforceable New Source Performance Standard Requirement - Submit reports in accordance with the provisions established in 40 CFR Part 60.51Da.



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Section VI. Specific Operating Conditions (continued)

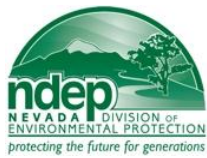
D. Emission Unit #S2.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

d. Reporting (continued)

- ix. Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80) – The following reporting requirements apply only to Section VIII of the PSD Permit issued 1/3/80:
The Regional Administrator (USEPA) shall be notified by telephone (*by The Permittee*) within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results an increase in emissions above any allowable emissions limit stated in Section VIII of the USEPA-issued PSD permit dated January 3, 1980 of these conditions. In addition the Regional Administrator shall be notified in writing within fifteen (15) days of any such failure. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of the initial failure, the period of time over which emissions were increased due to failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under Section VIII of these conditions, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations, which such malfunction, may cause.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.

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SPECIFIC OPERATING REQUIREMENTS**

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Section VI. Specific Operating Conditions (continued)**E. Emission Units S2.005 through S2.008**

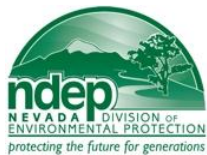
UTM: North 4059.35 km, East 711.68 km (Zone 11)(NAD 83)

| System 05 – Cooling Towers - Units #1 through #4 | | |
|---|---|--|
| S2.005 | Reid Gardner Unit #1 Cooling Tower (CT-01), Positive Draft Type, Marley Model and Serial# unknown, In Service 1965, 63,800 gallon/min Circulating Water Flow Rate | UTM: North 4,059.658 km, East 711.478 km |
| S2.006 | Reid Gardner Unit #2 Cooling Tower (CT-02), Positive Draft Type, Marley Model and Serial# unknown, In Service 1968, 63,800 gallon/min Circulating Water Flow Rate | UTM: North 4,059.657 km, East 711.406 km |
| S2.007 | Reid Gardner Unit #3 Cooling Tower (CT-03), Positive Draft Type, Marley Model and Serial# unknown, In Service 1976, 63,800 gallon/min Circulating Water Flow Rate | UTM: North 4,059.656 km, East 711.336 km |
| S2.008 | Reid Gardner Unit #4 Cooling Tower (CT-04), Positive Draft Type, Marley Model and Serial# unknown, In Service 1983, 131,000 gallon/min Circulating Water Flow Rate | UTM: North 4,059.130 km, East 711.576 km |

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Equipment
 - a. Emissions from **S2.005 through S2.007, each**, will be controlled by drift eliminators with a drift rate of **0.0005%**.
 - b. Emissions from **S2.008** will be controlled by drift eliminators with a drift rate of **0.0023%**.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the cooling tower stack of **S2.005 through S2.008, each**, the following pollutants in excess of the following specified limits:

 - a. **S2.005 through S2.007**
 - i. NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.005 through S2.007, each**, will not exceed **1.36 pounds per hour**.
 - ii. NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.005 through S2.007, each**, will not exceed **1.36 pounds per hour**. This limit is less than the **119.50 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **E.3.a.** of this section.
 - b. **S2.008**
 - i. NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.008** will not exceed **12.8 pounds per hour**.
 - ii. NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.008** will not exceed **12.8 pounds per hour**. This limit is less than the **132.17 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **E.3.b.** of this section.
 - c. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from of **S2.005 through S2.008, each**, will not equal or exceed **20%**. The opacity must be determined as set forth in 445B.22017.1.(a).
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. The maximum circulating water flow rate for **S2.005 through S2.007, each**, will not exceed **63,800 gallons per minute**.
 - b. The maximum circulating water flow rate for **S2.008** will not exceed **131,000 gallons per minute**.
 - c. The maximum Total Dissolved Solids (TDS) content for **S2.005 through S2.008, each**, will not exceed **8,500 milligrams per liter (8,500 ppm)**.
 - d. The use of chromium-based water treatment chemicals is prohibited.
 - e. **S2.005 through S2.008, each**, may operate **8,760 hours per calendar year**.



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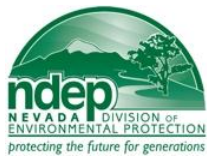
**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

E. Emission Units S2.005 through S2.008 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting
The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.005 through S2.008** are operated:
 - a. Monitoring
The Permittee, upon the issuance date of this operating permit will:
Sample the cooling tower water from **S2.005 through S2.008, each**, on a calendar quarterly basis for the TDS concentration in parts per million (ppm). The TDS will be determined using EPA Method 160.1 DNS.
 - b. Recordkeeping
The Permittee will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.005 through S2.008, each**, are operating under this operating scenario:
 - i. The TDS value of the circulating water of **S2.005 through S2.008, each**, on a calendar quarterly basis. The TDS value will be based on the sampling required in **E.4.a.** of this section.
 - ii. The volume flow rate of the circulating water of **S2.005 through S2.008, each**, on an hourly basis.
 - iii. The total hourly quantities of water circulated for each hour of each day **S2.005 through S2.008** operates.
 - iv. The total daily hours of operation of **S2.005 through S2.008** for the corresponding date.
 - v. Inspect and record in a contemporaneous log the maintenance and operation of the drift eliminators of **S2.005 through S2.008, each**, in accordance with the manufacturer's guidelines on an annual basis. Annual inspection records must show that observations were made and include records of any corrective actions taken.
 - c. Reporting
The Permittee will:
 - i. Report all excess emissions as required in **Sections III.B and III.C.** of this operating permit.
 - ii. Report all deviations as required in **Section V.C.** of the operating permit.
 - iii. Submit semi-annual monitoring reports as required in **Section V.C.** of this operating permit.
 - iv. Certify compliance with all applicable requirements as required in **Section V.E.** of this operating permit.
5. NAC 445B.3405 (NAC 445B.316) Part 70 Program Shielded Requirements
No specific shield requested.

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Section VI. Specific Operating Conditions (continued)**F. Emission Unit PF1.001a through PF1.001f**

UTM: North 4,059,529 km, East 711.775 (Zone 11)(NAD 83)

System 06 – Coal Unloading Station & Coal Conveying Equipment (C-05), Manufactured by McNalley-Pittsburgh

| | | |
|-----------------|---|--------------|
| PF1.001a | Transfer of Coal from train unloading station into the Coal feed hoppers | SCC 30510403 |
| PF1.001b | Transfer Tower 1 - Transfer of Coal from Conveyor B onto Conveyors C or F | SCC 30510103 |
| PF1.001c | Transfer Tower 2 - Transfer of Coal from Conveyor F onto Conveyors G or N | SCC 30510103 |
| PF1.001d | C Stack out - Transfer of Coal from Conveyor C onto Reclaim Stack Out Pile #1 | SCC 30510103 |
| PF1.001e | G Stack out - Transfer of Coal from Conveyor G onto Reclaim Stack Out Pile #2 | SCC 30510103 |
| PF1.001f | N Stack out - Transfer of Coal from Conveyor N onto Reclaim Stack Out Pile #3 | SCC 30510103 |

1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **PF1.001a** will be controlled by a Wet Suppression System that employs Fine Mist and Water Deluge with **90%** control efficiency and will be in an enclosure with **50%** control efficiency. The combined emission control efficiency will be **95%**.
- Emissions from **PF1.001b** and **PF1.001c** will be controlled by a Wet Suppression System that employs Foam with **90%** control efficiency, Passive Dust Collector with **90%** control efficiency and will be in an enclosure with **50%** control efficiency. The combined emission control efficiency will be **99.5%**.
- Emissions from **PF1.001d through PF1.001f, each**, will be controlled by a Wet Suppression System with **90%** control efficiency and Telescopic Chute with **50%** control efficiency. The combined emission control efficiency will be **95%**.
- Water and/or surfactant application will be added as needed along the covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage pile.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission Limits

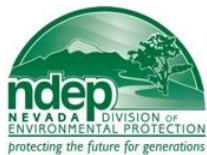
On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.001a through PF1.001f**, the following pollutants in excess of the following specified limits:

a. **PF1.001a**

- NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **PF1.001a** will not exceed **0.28 pound per hour**, or more than **0.13 ton per year**.
- NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.001a** will not exceed **0.13 pound per hour**, or exceed **0.063 ton per year**. This limit is less than **90.06 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **F.3.a.** of this section.

b. **PF1.001b and PF1.001c**

- NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **PF1.001b and PF1.001c, each**, will not exceed **0.028 pound per hour**, or more than **0.013 ton per year**.
- NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.001b and PF1.001c**, will not exceed **0.013 pound per hour**, or exceed **0.0063 ton per year**. This limit is less than **90.06 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **F.3.a.** of this section.



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Section VI. Specific Operating Conditions (continued)

F. Emission Unit PF1.001a through PF1.001f (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Emission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **PF1.001a through PF1.001f**, the following pollutants in excess of the following specified limits: (continued)

c. **PF1.001d through PF1.001f**

- i. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **PF1.001d through PF1.001f, each**, will not exceed **0.28 pound per hour**, or more than **0.13 ton per year**.
- ii. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.001d through PF1.001f, each**, will not exceed **0.13 pound per hour**, or exceed **0.063 ton per year**. This limit is less than **90.06 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **F.3.a.** of this section.
- d. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from **PF1.001a through PF1.001f** will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
- e. 40 CFR 60.254(a) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Section 60.8 is completed, an owner or operator subject to the provisions of NSPS Subpart Y (Coal Preparation Plants) shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit **20 percent** opacity or greater.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

- a. Maximum allowable throughput for **PF1.001a through PF1.001f, each**, will not exceed **2,500 tons of coal per hour**.
- b. **PF1.001a through PF1.001f, each**, shall not operate for more than **6,700 hours per calendar year**.

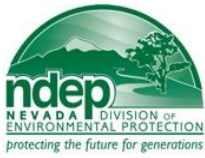
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance, Monitoring and Recordkeeping

The Permittee, upon issuance of this operating permit will:

- i. Monitor and record the weight of each batch or charge of coal to **System 06** on a daily basis.
 - (1) Monitor and Record weight of coal unloaded from rail car at **PF1.001a**.
 - (2) Monitor and record weight of coal transferred to **PF1.001b through PF1.001f**.
- ii. Monitor and record the hours of operation for **PF1.001a through PF1.001f, each**, on a daily basis.
- iii. Within 30 days of the issuance of this operating permit, **The Permittee** shall submit a visual observation plan to be approved by the director. The observation plan shall identify multiple observation points from where the visible emission sources, excluding emissions sources located and operated inside a building shall be monitored. The visual observations shall be conducted once every two-calendar weeks. All of the visible emission sources associated with each observation point shall be specifically identified in the observation plan.



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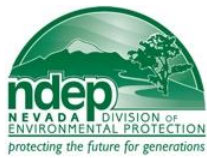
**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

F. Emission Unit PF1.001a through PF1.001f (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
 - a. Compliance, Monitoring and Recordkeeping (continued)
 - iv. A certified Method 9 observer shall conduct and record a visible emission survey of visible emissions from the emission sources, in accordance with the submitted observation plan, once every two-calendar weeks, under normal representative operating conditions. Record the time and date of the survey and whether any visible emissions were observed. If the visible emission survey detects any visible emissions, **The Permittee** will conduct a Method 9 visible emissions reading conducted by a certified visible emissions reader within 4 hours of the initial visible observation survey, including all documents required under 40 CFR Part 60, Appendix A.
 - v. The required monitoring established in **i. through iv.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **PF1.001a through PF1.001f, each**, is operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily weight of each batch or charge load of coal, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of coal, in tons per hour. The average hourly throughput rate will be determined from the daily weight of each batch or charge load and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) The corresponding yearly throughput rate of coal, in tons per year. The yearly throughput rate will be determined from the daily weight of each batch or charge load recorded in **(2)** above.
 - (6) Results and verification of the visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
 - vi. As a means of showing initial compliance with the NSPS Subpart Y opacity limit prescribed in **F.2.e.** of this section, within 180 days from the date of issuance of this operating permit, conduct and record a Method 9 Initial Opacity Compliance Demonstration (IOCD) for all emission Units that support boiler Unit #1 through #4 using the procedures in Section 60.11 to determine the opacity from the discharge of **PF1.001a through PF1.001f** to the atmosphere. The Method 9 IOCD shall be performed and recorded by a certified opacity reader.
5. NAC 445B.3405 (445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.

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Section VI. Specific Operating Conditions (continued)**G. Emission Unit S2.021, S2.022a and S2.022b** UTM: North 4,059.540 km, East 711.596 km (Zone 11)(NAD 83)**System 07 – Loading of #1–3 Coal Conveying from Stack Out #1 and #2, Manufactured by McNalley–Pittsburgh**

| | | |
|----------------|---|--------------|
| S2.021 | Transfer of Coal from Feeder D or E onto Conveyor D | SCC 30510103 |
| S2.022a | Transfer of Coal from Feeder H-1 or H-2 onto Conveyor H | SCC 30510103 |
| S2.022b | Transfer of Coal from Conveyor H onto Conveyor J | SCC 30510103 |

Descriptive Stack Parameters for Engart D

Stack Height: 30.0 feet

Stack Inside Diameter: 2.0 feet

Stack Exit Velocity: 68.98 FPS

Gas Volume Flow Rate: 13,000 DSCFM

Located at UTM North 4,059.540 km, East 711.596 km
(Zone 11)(NAD 83)Descriptive Stack Parameters for Engart H

Stack Height: 30.0 feet

Stack Inside Diameter: 3.0 feet

Stack Exit Velocity: 84.90 FPS

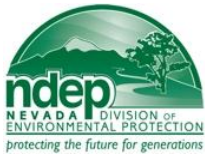
Gas Volume Flow Rate: 36,000 DSCFM

Located at UTM North 4,059.453 km, East 711.611 km
(Zone 11)(NAD 83)1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.021** will be vented through an Engart dust extractor (**Engart D**) with a manufacturer guarantee grain loading of **0.0037 gr/ft³**.
- Emissions from **S2.022a** and **S2.022b** will be vented through an Engart dust extractor (**Engart H**) with a manufacturer guarantee grain loading of **0.0037 gr/ft³**.
- Water and/or surfactant application will be added as needed along the covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage pile.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission LimitsOn and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.021, S2.022a and S2.022b** the following pollutants in excess of the following specified limits:a. **S2.021**

- NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **S2.021**, will not exceed **0.41 pound per hour**.
- NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.021** will not exceed **0.41 pound per hour**. This limit is less than **84.25 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **G.3.a.** of this section.
- NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from **S2.021** will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
- 40 CFR 60.254(b) Federally Enforceable NSPS Requirement – On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs **G.2.a.iv.(1) and (2)** of this section, as applicable to the affected facility.
 - The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit **10 percent opacity or greater**.
 - The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of **0.023 g/dscm (0.010 gr/dscf)**.



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Section VI Specific Operating Conditions (continued)

G. Emission Unit S2.021, S2.022a and S2.022b (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Emission Limits (continued)

b. S2.022a and S2.022b

- i. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **S2.022a and S2.022b, combined**, will not exceed **1.14 pounds per hour**.
- ii. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.022a and S2.022b, combined**, will not exceed **1.14 pounds per hour**. This limit is less than **84.25 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **G.3.a.** of this section.
- iii. NAC 445B.22017 Federally Enforceable SIP Requirements – The opacity from **S2.022a and S2.022b, each**, will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
- iv. 40 CFR 60.254(b) Federally Enforceable NSPS Requirement – On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after **April 28, 2008**, must meet the requirements in paragraphs **G.2.b.iv. (1) and (2)** of this section, as applicable to the affected facility.
 - (1) The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit **10 percent opacity or greater**.
 - (2) The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of **0.023 g/dscm (0.010 gr/dscf)**.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

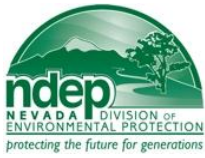
- a. Maximum allowable throughput of **System 07** will not exceed **1,650 tons of coal per hour**.
- b. **S2.021, S2.022a and S2.022b, each**, may operate **8,760 hours per calendar year**.

**4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Compliance, Monitoring, Recordkeeping and Reporting**

a. Compliance/Performance Testing

The Permittee will:

- i. Conduct and record a Method 5 and Method 201 or 201A (or an equivalent method as approved by the Director) performance test for PM and PM₁₀ on the exhaust stack of **Engart D and Engart H, each**, consisting of three valid runs within 60 days, but no later than 180 days, from the date of permit issuance. The Method 201 or 201A emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201 or 201A. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5.
- ii. As a means of showing initial compliance with the NSPS Subpart Y opacity limit prescribed in **G.2.a.iv. and b.iv.** of this section, within 180 days from the date of issuance of this operating permit, conduct and record a Method 9 Initial Opacity Compliance Demonstration (IOCD) using the procedures in Section 60.11 to determine the opacity from the stacks of **S2.021, S2.022a and S2.022b**, to the atmosphere. The Method 9 IOCD shall be performed and recorded by a certified opacity reader.



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Section VI Specific Operating Conditions (continued)

G. Emission Unit S2.021, S2.022a and S2.022b (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)

b. Monitoring and Recordkeeping

The Permittee will:

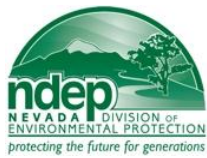
- i. Monitor and record the throughput rate of coal to **S2.021, S2.022a and S2.022b** on a daily basis.
- ii. Monitor and record the hours of operation of **S2.021, S2.022a and S2.022b** on a daily basis.
- iii. Conduct and record once every two calendar weeks visible emission inspection on the exhaust stack of **Engart D and Engart H** while **System 07** is operating; record the time of the survey and indicate whether any visible emissions were observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
- iv. Monitor and record that the maintenance and operation of **Engart D and Engart H** are in accordance with the manufacturer's operation and maintenance guidelines. Records must show that observations were made, and records of any corrective actions taken.
- v. The required monitoring established in **i. through iv.** above, will be maintained in a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.021, S2.022a and S2.022b, each**, is operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily weight of each batch or charge load of coal, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of coal, in tons per hour. The average hourly throughput rate will be determined from the daily weight of each batch or charge load and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) The corresponding yearly throughput rate of coal, in tons per year. The yearly throughput rate will be determined from the daily weight of each batch or charge load recorded in **(2)** above.
 - (6) Results and verification of the visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.

- c. New Source Performance Standards (NSPS) – Notification and Record Keeping (40 CFR Part 60.7(b))

The Permittee, upon the issuance date of this permit shall:

- i. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of **S2.021, S2.022a and S2.022b**; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

5. NAC 445B.3405 (445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.



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SPECIFIC OPERATING REQUIREMENTS

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Section VI. Specific Operating Conditions (continued)

H. Emission Unit S2.023 and PF1.002 UTM: North 4,059.188 km, East 711.806 km (Zone 11)(NAD 83)

System 08 – Loading of #4 Coal Conveying from Stack Out #3 (C-06a), Manufactured by McNalley-Pittsburgh

| | | |
|---------|--|--------------|
| S2.023 | Transfer of Coal from Conveyors O-1A/B or O-2A/B onto Conveyors O-1 or O-2 | SCC 30510103 |
| PF1.002 | Transfer of Coal from Transfer Tower #3 onto Conveyor P-1 or P-2 | SCC 30510103 |

Descriptive Stack Parameters for Engart O

Stack Height: 30.0 feet

Stack Inside Diameter: 3.0 feet

Stack Exit Velocity: 84.90 FPS

Gas Volume Flow Rate: 36,000 DSCFM

1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.023** will be vented through an Engart dust extractor (**Engart O**) with a manufacturer guarantee grain loading of **0.0037 gr/ft³**.
- Emissions from **PF1.002** will be controlled with an Enclosure with **50%** control efficiency, Water Sprays, with **90%** control efficiency, and Passive Dust Collectors with **90%** control efficiency. The combined emission control efficiency will be **99.5%**.
- Water and/or surfactant application will be added as needed along the covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage pile.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission LimitsOn and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.023 and PF1.002** the following pollutants in excess of the following specified limits:a. **S2.023**

- NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **S2.023** will not exceed **1.14 pounds per hour**.
- NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.023** will not exceed **1.14 pounds per hour**. This limit is less than **82.02 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **H.3.a.** of this section.
- NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from **S2.023** will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
- 40 CFR 60.254(b) Federally Enforceable NSPS Requirement – On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs **H.2.a.iv. (1) and (2)** of this section, as applicable to the affected facility.
 - The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit **10 percent opacity or greater**.
 - The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of **0.023 g/dscm (0.010 gr/dscf)**.



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Section VI Specific Operating Conditions (continued)

H. Emission Unit S2.023 and PF1.002 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Emission Limits (continued)

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.023 and PF1.002** the following pollutants in excess of the following specified limits: (continued)

b. **PF1.002**

i. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **PF1.002** will not exceed **0.015 pound per hour**, nor more than **0.006 ton per year**.

ii. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.002** will not exceed **0.007 pound per hour**, or exceed **0.003 ton per year**. This limit is less than **82.02 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **H.3.a.** of this section.

iii. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from **PF1.002** will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

c. 40 CFR 60.254(a) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Section 60.8 is completed, an owner or operator subject to the provisions of NSPS Subpart Y (Coal Preparation Plants) shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit **20 percent** opacity or greater.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. Maximum allowable throughput of **System 08** will not exceed **1,400 tons of coal per hour**.

b. **S2.023 and PF1.002** may operate **8,760 hours per calendar year**.

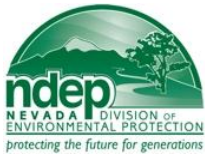
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance/Performance Testing

The Permittee will:

- i. Conduct and record a Method 5 and Method 201 or 201A (or an equivalent method as approved by the Director) performance test for PM and PM₁₀ on the exhaust stack of **Engart O** consisting of three valid runs within 60 days, but no later than 180 days, from the date of permit issuance. The Method 201 or 201A emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201 or 201A. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5.
- ii. As a means of showing initial compliance with the NSPS Subpart Y opacity limit prescribed in **H.2.a.iv. and 2.c.** of this section, within 180 days from the date of issuance of this operating permit, conduct and record a Method 9 Initial Opacity Compliance Demonstration (IOCD) using the procedures in Section 60.11 to determine the opacity from the discharge of **S2.023 and PF1.002**, to the atmosphere. The Method 9 IOCD shall be performed and recorded by a certified opacity reader.



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Section VI Specific Operating Conditions (continued)

H. Emission Unit S2.023 and PF1.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting
 - b. Monitoring and Recordkeeping

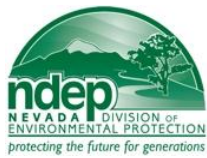
The Permittee will:

 - i. Monitor and record the throughput rate of coal to **S2.023 and PF1.002, each**, on a daily basis.
 - ii. Monitor and record the hours of operation of **S2.023 and PF1.002, each**, on a daily basis.
 - iii. Conduct and record once every two calendar weeks visible emission inspection on the exhaust stack of **Engart O** while **System 08** is operating; record the time of the survey and indicate whether any visible emissions were observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
 - iv. Monitor and record that the maintenance and operation of **Engart O** are in accordance with the manufacturer's operation and maintenance guidelines. Records must show that observations were made, and records of any corrective actions taken.
 - v. The required monitoring established in **i. through iv.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.023 and PF1.002, each**, is operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily weight of each batch or charge load of coal, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of coal, in tons per hour. The average hourly throughput rate will be determined from the daily weight of each batch or charge load and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) The corresponding yearly throughput rate of coal, in tons per year. The yearly throughput rate will be determined from the daily weight of each batch or charge load recorded in **(2)** above.
 - (6) Results and verification of the visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
 - c. New Source Performance Standards (NSPS) – Notification and Record Keeping (40 CFR Part 60.7(b))

The Permittee, upon the issuance date of this permit shall:

 - i. Maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of **S2.023**; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
5. NAC 445B.3405 (445B.316) Part 70 Program Shielded Requirements

No specific shield requested.

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Section VI. Specific Operating Conditions (continued)**I. Emission Units S2.010a through S2.010d and PF1.003** UTM: North 4,059.538 km, East 711.489 km (Zone 11)**System 09 – Units #1–3 Coal Storage Silos (C–01), Manufactured by McNalley–Pittsburgh, Model #512K–8**

| | | |
|----------------|--|--------------|
| S2.010a | Transfer of Coal from Conveyor D onto Conveyor E | SCC 30510203 |
| S2.010b | Transfer of Coal from Conveyor E into (12) Coal Silos for Units #1–3 | SCC 30510203 |
| S2.010c | Transfer of Coal from Conveyor J onto Conveyor M, or K | SCC 30510203 |
| S2.010d | Transfer of Coal from Conveyor M, or K into (12) Coal Silos for Units #1–3 | SCC 30510203 |
| PF1.003 | Unloading of (12) Coal Silos for Units #1–3 (C–01b) | SCC 30510203 |

Descriptive Stack Parameters for Engarts 123a/b (ducted to the same stack)

Stack Height: 120.0 feet

Stack Inside Diameter: 2.75 feet

Stack Exit Velocity: 119.28 FPS

Gas Volume Flow Rate: 42,500 DSCFM

Located at UTM North 4,059.448 km, East 711.485 km (Zone 11)(NAD 83)

1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.010a** and **S2.010b** will be vented through an Engart dust extractor (**Engart 123a**) with a manufacturer guarantee grain loading of **0.0037 gr/ft³**.
- Emissions from **S2.010c** and **S2.010d** will be vented through an Engart dust extractor (**Engart 123b**) with a manufacturer guarantee grain loading of **0.0037 gr/ft³**.
- PF1.003** is a closed system and does not vent to atmosphere.
- S2.010a through S2.010d** are located in fully-enclosed (tripper-room) building. **PF1.003** is located below the tripper-room.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission LimitsOn and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.010a through S2.010d and PF1.003** the following pollutants in excess of the following specified limits:a. **S2.010a through S2.010d**

- NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from the stack of **S2.010a through S2.010d, combined**, will not exceed **1.35 pound per hour**.
- NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from the stack of **S2.010a through S2.010b, combined**, will not exceed **1.35 pounds per hour**. This limit is less than **84.25 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **I.3.a.** of this section.
- NAC 445B.22017 Federally Enforceable SIP Requirements – The opacity from the stack of **S2.010a through S2.010d, combined**, will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
- 40 CFR 60.254(b) Federally Enforceable NSPS Requirement – On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs **I.2.a.iv.(1) and (2)** of this section, as applicable to the affected facility.
 - The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit **10 percent opacity or greater**.
 - The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of **0.023 g/dscm (0.010 gr/dscf)**.



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Section VI. Specific Operating Conditions (continued)

I. Emission Units S2.010a through S2.010d and PF1.003 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Emission Limits (continued)

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.010a through S2.010d and PF1.003** the following pollutants in excess of the following specified limits: (continued)

b. PF1.003

i. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **PF1.003** will not exceed **0.0 pound per hour**, nor more than **0.0 ton per year**.

ii. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.003** will not exceed **0.0 pounds per hour**, nor more than **0.0 ton per year**. This limit is less than **55.63 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **I.3.b.** of this section.

iii. NAC 445B.305 Part 70 Program – The opacity from the discharge of **PF1.003** to the atmosphere will not exceed **0.0%**. This limit is less than the NAC 445B.22017 allowable opacity limit of **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

c. 40 CFR 60.254(a) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Section 60.8 is completed, an owner or operator subject to the provisions of NSPS Subpart Y (Coal Preparation Plants) shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit **20 percent** opacity or greater.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. Maximum allowable loading rate of **S2.010a through S2.010d, combined**, will not exceed **1,650 tons of coal per hour**.

b. Maximum allowable unloading rate of **PF1.003** will not exceed **152.8 tons of coal per hour**.

c. **S2.010a through S2.010d and PF1.003, each**, may operate **8,760 hours per calendar year**.

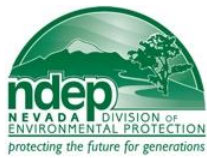
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance/Performance Testing

i. Conduct and record a Method 5 and Method 201 or 201A (or an equivalent method as approved by the Director) performance test for PM and PM₁₀ on the exhaust stack of **Engart 123a and Engart 123b**, consisting of three valid runs within 60 days, but no later than 180 days, from the date of permit issuance. The Method 201 or 201A emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201 or 201A. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5.

ii. As a means of showing initial compliance with the NSPS Subpart Y opacity limit prescribed in **I.2.a.iv. and 2.c.** of this section, within 180 days from the date of issuance of this operating permit, conduct and record a Method 9 Initial Opacity Compliance Demonstration (IOCD) using the procedures in Section 60.11 to determine the opacity from the discharge of **S2.010a through S2.010d and PF1.003, each**, to the atmosphere. The Method 9 IOCD shall be performed and recorded by a certified opacity reader.



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Section VI. Specific Operating Conditions (continued)

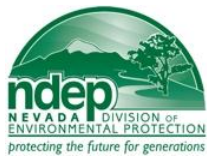
I. Emission Units S2.010a through S2.010d and PF1.003 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
b. Compliance, Monitoring and Recordkeeping

The Permittee, upon issuance of this operating permit will:

- i. Monitor and record the throughput of coal for **S2.010a through S2.010d and PF1.003, each**, on a daily basis.
- ii. Monitor and record the hours of operation for **S2.010a through S2.010d and PF1.003, each**, on a daily basis.
- iii. Conduct and record once every two calendar weeks visible emission inspection on the exhaust stack of **Engart 123a and Engart 123b** while **System 09** is operating; record the time of the survey and indicate whether any visible emissions were observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
- iv. Monitor and record that the maintenance and operation of **Engart 123a and Engart 123b** are in accordance with the manufacturer's operation and maintenance guidelines. Records must show that observations were made, and records of any corrective actions taken.
- v. The required monitoring established in **i. through iv.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.010a through S2.010d and/or PF1.003, each**, are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily throughput rate of coal, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of coal, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) The corresponding yearly throughput rate of coal, in tons per year. The yearly throughput rate will be determined from the daily weight of each batch or charge load recorded in **(2)** above.
 - (6) Results and verification of the visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- vi. On an annual basis for **PF1.003**, perform and record visible emissions inspections at the point of transfer of coal from the coal storage silos to the boiler coal mills, while coal is being discharged from the silos. If these visible emissions inspections document any opacity discharged to the atmosphere greater than **0%** from the enclosed transfer points, provide immediate corrective action in the affected transfer enclosures. Annual visible emissions inspection records must show that observations were made and include records of any corrective actions taken.
- vii. On an annual basis, perform an inspection of the **PF1.003** coal silo discharge enclosures for each of the coal storage silos. Annual enclosure inspection records must show that observations were made and include records of any corrective actions taken.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.



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Section VI. Specific Operating Conditions (continued)

J. Emission Units S2.011 and PF1.004

UTM: North 4,059.310 km, East 711.521 km (Zone 11)(NAD 83)

System 10 – Unit #4 Coal Storage Silos (C-02), Manufactured by McNalley-Pittsburgh

| | | |
|---------|--|--------------|
| S2.011 | Transfer of Coal from Conveyors P-1 or P-2 into (8) Coal Silos for Unit #4 (C-02a) | SCC 30510203 |
| PF1.004 | Unloading of (8) Coal Silos for Unit #4 (C-02b) | SCC 30510203 |

Descriptive Stack Parameters for Engarts 4a/b (ducted to the same stack)

Stack Height: 192.5 feet

Stack Inside Diameter: 2.75 feet

Stack Exit Velocity: 96.12 FPS

Gas Volume Flow Rate: 34,250 DSCFM

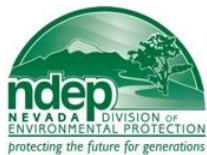
Located at UTM North 4,059.304 km, East 711.510 km (Zone 11)(NAD 83)

1. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.011** will be vented through two (2) Engart dust extractor (**Engart 4a and Engart 4b**) with a manufacturer guarantee grain loading of **0.0037 gr/ft³**.
- Control system for **PF1.004** consisting of an enclosure.
- S2.011** is located in fully enclosed (cascade room) building. **PF1.004** is located below the cascade room.

2. NAC 445B.3405 (NAC 445B.316) Part 70 ProgramEmission LimitsOn and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge from **S2.011 and PF1.004** into the atmosphere the following pollutants in excess of the following specified limits:a. **S2.011**

- NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from the stack of **S2.011** will not exceed **1.09 pounds per hour**.
- NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from the stack of **S2.011** will not exceed **1.09 pounds per hour**. This limit is less than **85.4 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **J.3.a.** of this section.
- NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from the stack of **S2.011** to the atmosphere will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
- 40 CFR 60.254(b) Federally Enforceable New Source Performance Standard Requirement – On and after the date on which the performance test is conducted or required to be completed under §60.8, whichever date comes first, an owner or operator of any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified after April 28, 2008, must meet the requirements in paragraphs **J.2.a.iv.(1) and (2)** of this section, as applicable to the affected facility.
 - The owner or operator must not cause to be discharged into the atmosphere from the affected facility any gases which exhibit **10 percent opacity or greater**.
 - The owner or operator must not cause to be discharged into the atmosphere from any mechanical vent on an affected facility gases which contain particulate matter in excess of **0.023 g/dscm (0.010 gr/dscf)**.



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Section VI. Specific Operating Conditions (continued)

J. Emission Units S2.011 and PF1.004 (continued)

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Emission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.011 and PF1.004** the following pollutants in excess of the following specified limits:

b. PF1.004

- i. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **PF1.004** will not exceed **0.0 pound per hour**.
- ii. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.004** will not exceed **0.0 pounds per hour**. This limit is less than **53.40 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **J.3.b.** of this section.
- iii. NAC 445B.305 Part 70 Program – The opacity from the discharge of **PF1.004** to the atmosphere will not exceed **0.0%**. This limit is less than the NAC 445B.22017 allowable opacity limit of **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

- c. 40 CFR 60.254(a) Federally Enforceable NSPS Requirement – On and after the date on which the performance test required to be conducted by Section 60.8 is completed, an owner or operator subject to the provisions of NSPS Subpart Y (Coal Preparation Plants) shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit **20 percent** opacity or greater.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

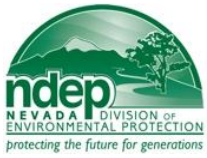
- a. Maximum allowable loading rate of coal in **S2.011** will not exceed **1,800 tons per hour**.
- b. Maximum allowable unloading rate of coal in **PF1.004** will not exceed **123.2 tons per hour**.
- c. **S2.011 and PF1.004, each**, may operate **8,760 hours per calendar year**.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance/Performance Testing

- i. Conduct and record a Method 5 and Method 201 or 201A (or an equivalent method as approved by the Director) performance test for PM and PM₁₀ on the exhaust stack of **Engart 4a and Engart 4b, each**, consisting of three valid runs within 60 days, but no later than 180 days, from the date of permit issuance. The Method 201 or 201A emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201 or 201A. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5.
- ii. As a means of showing initial compliance with the NSPS Subpart Y opacity limit prescribed in **J.2.a.iv. and 2.c.** of this section, within 180 days from the date of issuance of this operating permit, conduct and record a Method 9 Initial Opacity Compliance Demonstration (IOCD) using the procedures in Section 60.11 to determine the opacity from the discharge of **S2.011 and PF1.004, each**, to the atmosphere. The Method 9 IOCD shall be performed and recorded by a certified opacity reader.



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Section VI. Specific Operating Conditions (continued)

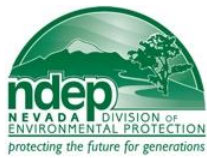
J. Emission Units S2.011 and PF1.004 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
b. Compliance, Monitoring and Recordkeeping

The Permittee, upon issuance of this operating permit will:

- i. Monitor and record the throughput of coal for **S2.011 and PF1.004, each**, on a daily basis.
- ii. Monitor and record the hours of operation for **S2.011 and PF1.004, each**, on a daily basis.
- iii. Conduct and record once every two calendar weeks visible emission inspection on the exhaust stack of **Engart 4a and Engart 4b** while **System 10** is operating; record the time of the survey and indicate whether any visible emissions were observed. If any visible emissions are observed, conduct and record a Method 9 visible emissions test within 24 hours and perform any necessary corrective actions. The Method 9 visible emissions test will be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
- iv. Monitor and record that the maintenance and operation of **Engart 4a and Engart 4b** are in accordance with the manufacturer's operation and maintenance guidelines. Records must show that observations were made, and records of any corrective actions taken.
- v. The required monitoring established in **i. through iv.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.011 and/or PF1.004** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily throughput rate of coal, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of coal, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) The corresponding yearly throughput rate of coal, in tons per year. The yearly throughput rate will be determined from the daily weight of each batch or charge load recorded in **(2)** above.
 - (6) Results and verification of the visible emissions survey, and documentation of any Method 9 visible emission tests that were undertaken, including all documents required under 40 CFR Part 60, Appendix A.
- vi. On an annual basis for **PF1.004**, perform and record visible emissions inspections at the point of transfer of coal from the coal storage silos to the boiler coal mills, while coal is being discharged from the silos. If these visible emissions inspections document any opacity discharged to the atmosphere greater than **0%** from the enclosed transfer points, provide immediate corrective action in the affected transfer enclosures. Annual visible emissions inspection records must show that observations were made and include records of any corrective actions taken.
- vii. On an annual basis, perform an inspection of the **PF1.004** coal silo discharge enclosures for each of the coal storage silos. Annual enclosure inspection records must show that observations were made and include records of any corrective actions taken.

5. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.

**Bureau of Air Pollution Control****Facility ID No. A0379****Permit No. AP4911-0897.01****CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)**K. Emission Units S2.012 and PF1.009** UTM: North 4,059.420 km, East 711.582 km (Zone 11)(NAD 83)**System 11 - Units #1-3 Fly Ash Storage Silos (C-04), Manufactured by United Conveyor Corp**

| | |
|----------------|--|
| S2.012 | Loading of Fly Ash Silo for Units #1-3 (C-04a) |
| PF1.009 | Unloading of Fly Ash Silo for Units #1-3 (C-04b) |

1. NAC 445B.3405 (445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.012** shall be ducted to a Flex-Kleen Pulse-jet fabric filter with **90%** control efficiency and **100%** capture efficiency installed on the fly ash silo.
- Emissions from **PF1.009** will be controlled by a Water Sprays with **75%** control efficiency and will be in an enclosure with **50%** control efficiency. The combined emission control efficiency will be **87.5%**.

2. NAC 445B.3405 (445B.316) Part 70 ProgramEmission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.012 and PF1.009, each**, the following pollutants in excess of the following specified limits:

a. **S2.012**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.012** will not exceed **0.042 pound per hour**, or more than **0.18 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.012** will not exceed **0.020 pound per hour**, or more than **0.086 ton per year**. This limit is less than **37.3 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **K.3.a.i.** of this section.

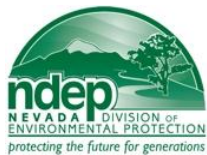
b. **PF1.009**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **PF1.009** will not exceed **0.48 pound per hour**, or more than **0.23 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.009** will not exceed **0.23 pound per hour**, or more than **0.11 ton per year**. This limit is less than **61.0 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **K.3.a.ii.** of this section.

- NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the discharges **S2.012 and PF1.009, each**, to the atmosphere will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

3. NAC 445B.3405 (445B.316) Part 70 ProgramOperating Parameters

- Maximum allowable throughput
 - The maximum loading rate of **S2.012** will not exceed **27 tons of fly ash per hour**.
 - The maximum unloading rate of **PF1.009** will not exceed **250 tons of fly ash per hour**.
- S2.012 and PF1.009, each**, may operate **8,760 hours per calendar year**.



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**CLASS I AIR QUALITY OPERATING PERMIT
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Section VI. Specific Operating Conditions (continued)

K. Emission Units S2.012 and PF1.009 (continued)

4. NAC 445B.3405 (445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Monitoring, Recordkeeping and Compliance

The Permittee, upon issuance of this operating permit will:

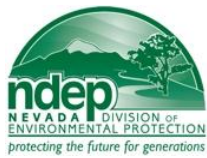
- i. Monitor and record the throughput of fly ash for **S2.012 and PF1.009, each**, on a daily basis.
- ii. Monitor and record the hours of operation for **S2.012 and PF1.009, each**, on a daily basis.
- iii. The required monitoring established in **i. through ii.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.012 and/or PF1.009** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily throughput rate of fly ash, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of fly ash, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) Calculate fly ash throughput in tons as follows: **[27 tons per hour]** x [hours of operation] x [baghouse control efficiency].

The value for baghouse control efficiency shall be from a written manufacturer's guarantee, or a NDEP-BAPC approved performance test of the baghouse under permitted conditions or the NDEP-BAPC standard control efficiency rating for a properly maintained baghouse of **0.02 grains/dscf**. Record what method is used to obtain baghouse control efficiency.

5. NAC 445B.3405 (445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.



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CLASS I AIR QUALITY OPERATING PERMIT
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Section VI. Specific Operating Conditions (continued)

L. Emission Units S2.013 and PF1.010 UTM: North 4,059,440 km, East 711,581 km (Zone 11)(NAD 83)

System 12 - Units #1-3 Backup Fly Ash Storage Silos (C-07), Manufactured by Smoot Co. Inc.

| | |
|---------|---|
| S2.013 | Loading of Backup Fly Ash Silo for Units #1-3 (C-07a) |
| PF1.010 | Unloading of Backup Fly Ash Silo for Units #1-3 (C-07b) |

1. NAC 445B.3405 (445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.013** shall be ducted to a Flex-Kleen Pulse-jet fabric filter with **90%** control efficiency and **100%** capture efficiency installed on the fly ash silo.
- Emissions from **PF1.010** will be controlled by a Water Sprays with **75%** control efficiency and will be in an enclosure with **50%** control efficiency. The combined emission control efficiency will be **87.5%**.

2. NAC 445B.3405 (445B.316) Part 70 ProgramEmission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.013 and PF1.010, each**, the following pollutants in excess of the following specified limits:

a. **S2.013**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.013** will not exceed **0.042 pound per hour**, or more than **0.18 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.013** will not exceed **0.02 pound per hour**, or more than **0.086 ton per year**. This limit is less than **37.3 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **L.3.a.i.** of this section.

b. **PF1.010**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **PF1.010** will not exceed **0.48 pound per hour**, or more than **0.23 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.010** will not exceed **0.23 pound per hour**, or more than **0.11 ton per year**. This limit is less than **61.0 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **L.3.a.ii.** of this section.

- NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the discharges **S2.013 and PF1.010, each**, to the atmosphere will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

3. NAC 445B.3405 (445B.316) Part 70 ProgramOperating Parameters

- Maximum allowable throughput
 - The maximum loading rate of **S2.013** will not exceed **27 tons of fly ash per hour**.
 - The maximum unloading rate of **PF1.010** will not exceed **250 tons of fly ash per hour**.
- S2.013 and PF1.010, each**, may operate **8,760 hours per calendar year**.



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Section VI. Specific Operating Conditions (continued)

L. Emission Units S2.013 and PF1.010 (continued)

4. NAC 445B.3405 (445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance, Monitoring and Recordkeeping

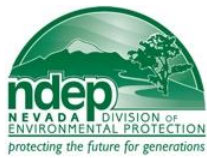
The Permittee, upon issuance of this operating permit will:

- i. Monitor and record the throughput of fly ash for **S2.013 and PF1.010, each**, on a daily basis.
- ii. Monitor and record the hours of operation for **S2.013 and PF1.010, each**, on a daily basis.
- iii. The required monitoring established in **i. through ii.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.013 and/or PF1.010** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily throughput rate of fly ash, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of fly ash, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) Calculate fly ash throughput in tons as follows: **[27 tons per hour] x [hours of operation] x [baghouse control efficiency]**.
The value for baghouse control efficiency shall be from a written manufacturer's guarantee, or a NDEP-BAPC approved performance test of the baghouse under permitted conditions or the NDEP-BAPC standard control efficiency rating for a properly maintained baghouse of **0.02 grains/dscf**. Record what method is used to obtain baghouse control efficiency.

5. NAC 445B.3405 (445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.

**Bureau of Air Pollution Control****Facility ID No. A0379****Permit No. AP4911-0897.01****CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

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Section VI. Specific Operating Conditions (continued)**M. Emission Units S2.014 and PF1.011** UTM: North 4,059.290 km, East 711.563 km (Zone 11)(NAD 83)**System 13 - Unit #4 Fly Ash Storage Silos (C-09), Manufactured by United Conveyor Corporation**

| | |
|----------------|---|
| S2.014 | Loading of Fly Ash Silo for Unit #4 (C-09a) |
| PF1.011 | Unloading of Fly Ash Silo for Unit #4 (C-09b) |

1. NAC 445B.3405 (445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.014** shall be ducted to a Flex-Kleen Pulse-jet fabric filter with **90%** control efficiency and **100%** capture efficiency installed on the fly ash silo.
- Emissions from **PF1.011** shall be controlled by wet suppression with **75%** control efficiency and partial enclosures with **50%** control efficiency. The combined emission control efficiency will be **87.5%**.

2. NAC 445B.3405 (445B.316) Part 70 ProgramEmission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.014 and PF1.011, each**, the following pollutants in excess of the following specified limits:

a. **S2.014**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.014** will not exceed **0.10 pounds per hour**, or more than **0.44 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.014** will not exceed **0.047 pound per hour**, or more than **0.21 ton per year**. This limit is less than **47.1 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **M.3.a.i.** of this section.

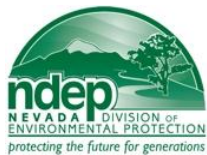
b. **PF1.011**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **PF1.011** will not exceed **0.48 pound per hour**, or more than **0.55 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.011** will not exceed **0.23 pound per hour**, or more than **0.26 ton per year**. This limit is less than **61.0 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **M.3.a.ii.** of this section.

- NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the discharges of **S2.014 and PF1.011, each**, to the atmosphere will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

3. NAC 445B.3405 (445B.316) Part 70 ProgramOperating Parameters

- Maximum allowable throughput
 - The maximum loading rate of **S2.014** will not exceed **65 tons of fly ash per hour**.
 - The maximum unloading rate of **PF1.011** will not exceed **250 tons of fly ash per hour**.
- S2.014 and PF1.011, each**, may operate **8,760 hours per calendar year**.



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Section VI. Specific Operating Conditions (continued)

M. Emission Units S2.014 and PF1.011 (continued)

4. NAC 445B.3405 (445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Compliance, Monitoring and Recordkeeping

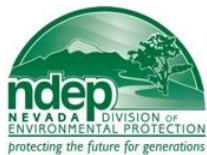
The Permittee, upon issuance of this operating permit will:

- i. Monitor and record the throughput of fly ash for **S2.014 and PF1.011, each**, on a daily basis.
- ii. Monitor and record the hours of operation for **S2.014 and PF1.011, each**, on a daily basis.
- iii. The required monitoring established in **i. through ii.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.014 and/or PF1.011** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily throughput rate of fly ash, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of fly ash, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **(2) and (3)** above.
 - (5) Calculate fly ash throughput in tons as follows: **[65.0 tons per hour]** x [hours of operation] x [baghouse control efficiency].
 - (6) The value for baghouse control efficiency shall be from a written manufacturer's guarantee, or a NDEP-BAPC approved performance test of the baghouse under permitted conditions or the NDEP-BAPC standard control efficiency rating for a properly maintained baghouse of **0.02 grains/dscf**. Record what method is used to obtain baghouse control efficiency.

5. NAC 445B.3405 (445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.

**Bureau of Air Pollution Control****Facility ID No. A0379****Permit No. AP4911-0897.01****CLASS I AIR QUALITY OPERATING PERMIT
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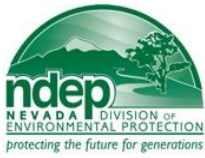
Section VI. Specific Operating Conditions (continued)N. **Emission Units S2.015 and PF1.012** UTM: North 4,059.350 km, East 711.680 km (Zone 11)(NAD 83)**System 14 – Units #1-3 Soda Ash Slurry Tank, Manufactured by Brown-Minneapolis Tank, Serial #276901**

| | |
|----------------|--|
| S2.015 | Loading of Units #1-3 Soda Ash Slurry Tank (W-01a) |
| PF1.012 | Unloading of Units #1-3 Soda Ash Slurry Tank (W-01b) |

1. NAC 445B.3405 (445B.316) Part 70 Program
Air Pollution Equipment
 - a. Emissions from **S2.015** shall be ducted to an Inverted Venturi scrubber with **80%** control efficiency and **100%** capture efficiency installed on **S2.015**.
 - b. Emissions from **PF1.012** shall consist of a wet (saturated) process.
2. NAC 445B.3405 (445B.316) Part 70 Program
Emission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.015 and PF1.012, each**, the following pollutants in excess of the following specified limits:

 - a. **S2.015**
 - i. NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.015** will not exceed **0.092 pound per hour**, or more than **0.14 ton per year**.
 - ii. NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.015** will not exceed **0.044 pound per hour**, or more than **0.064 ton per year**. This limit is less than **40.0 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **N.3.a.** of this section
 - iii. NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the discharges of **S2.015** to the atmosphere will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
 - b. **PF1.012**
 - i. NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) and PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.012** will not exceed **0.00 pound per hour**, or more than **0.00 tons per year**.
 - ii. NAC 445B.305 Part 70 Program - The opacity from the discharge of **PF1.012** to the atmosphere will not exceed **0.0%**. This limit is less than the NAC 445B.22017 allowable opacity limit of **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
3. NAC 445B.3405 (445B.316) Part 70 Program
Operating Parameters
 - a. The maximum allowable loading rate of **S2.015** will not exceed **30 tons of soda ash per hour**, or more than **21,000 tons of soda ash per year**.
 - b. **S2.015 and PF1.012, each**, may operate **8,760 hours per calendar year**.



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Section VI. Specific Operating Conditions (continued)

N. Emission Units S2.015 and PF1.012 (continued)

4. NAC 445B.3405 (445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

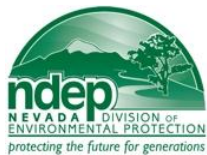
The Permittee, upon issuance of this operating permit will:

- a. Monitor and record the throughput of soda ash for **S2.015** on a daily basis.
- b. Monitor and record the hours of operation for **S2.015** on a daily basis.
- c. The required monitoring established in **a. and b.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.015** is operating:
 - i. The calendar date of any required monitoring.
 - ii. The total daily throughput rate of soda ash, in tons, for the corresponding date.
 - iii. The total daily hours of operation for the corresponding date.
 - iv. The corresponding average hourly throughput rate of soda ash, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **ii. and iii.** above.
 - v. On an annual basis for **PF1.012**, perform and record visible emissions inspections at the point of transfer of soda ash from the soda ash storage slurry tank, while soda ash is being discharged from the silos. If these visible emissions inspections document any opacity discharged to the atmosphere greater than 0% from the enclosed transfer points, provide immediate corrective action in the affected transfer enclosures. Annual visible emissions inspection records must show that observations were made and include records of any corrective actions taken.
 - vi. On an annual basis, perform an inspection of the **PF1.012** soda ash silo discharge enclosures for each of the soda ash storage slurry tank. Annual enclosure inspection records must show that observations were made and include records of any corrective actions taken.

5. NAC 445B.3405 (445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.



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Section VI. Specific Operating Conditions (continued)O. Emission Units S2.016 and PF1.013 UTM: North 4,059.250 km, East 711.568 km (Zone 11)(NAD 83)

System 15 - Unit #4 FGD Soda Ash Slurry Tank, Manufactured by Portec, Serial #T-403-1

| | |
|----------------|---|
| S2.016 | Loading of Unit #4 FGD Soda Ash Slurry Tank (W-02a) |
| PF1.013 | Unloading of Unit #4 FGD Soda Ash Slurry Tank (W-02b) |

1. NAC 445B.3405 (445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.016** shall be ducted to an Inverted Venturi scrubber with **80%** control efficiency and **100%** capture efficiency installed on **S2.016**.
- Emissions from **PF1.013** shall consist of a wet (saturated) process.

2. NAC 445B.3405 (445B.316) Part 70 ProgramEmission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.016 and PF1.013, each**, the following pollutants in excess of the following specified limits:

a. **S2.016**

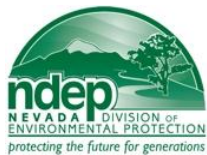
- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.016** will not exceed **0.092 pound per hour**, or more than **0.12 tons per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.016** will not exceed **0.044 pound per hour**, or more than **0.057 tons per year**. This limit is less than **40.0 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **O.3.a.** of this section.
- NAC 445B.22017 Federally Enforceable SIP Requirement- The opacity from the discharge of **S2.016** to the atmosphere will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

b. **PF1.013**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **PF1.013** will not exceed **0.00 pound per hour**, or more than **0.00 tons per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.013** will not exceed **0.00 pound per hour**, or more than **0.00 tons per year**.
- NAC 445B.305 Part 70 Program - The opacity from the discharge of **PF1.013** to the atmosphere will not exceed **0.0%**. This limit is less than the NAC 445B.22017 allowable opacity limit of **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

3. NAC 445B.3405 (445B.316) Part 70 ProgramOperating Parameters

- Maximum allowable loading rate of **S2.016** will not exceed **30 tons of soda ash per hour**, or more than **17,950 tons of soda ash per year**.
- S2.016 and PF1.013, each**, may operate **8,760 hours per calendar year**.



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Section VI. Specific Operating Conditions (continued)

O. Emission Units S2.016 and PF1.013 (continued)

4. NAC 445B.3405 (445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

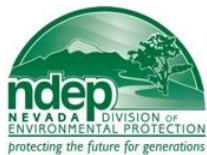
The Permittee, upon issuance of this operating permit will:

- a. Monitor and record the throughput of soda ash for **S2.016** on a daily basis.
- b. Monitor and record the hours of operation for **S2.016** on a daily basis.
- c. The required monitoring established in **a. through b.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.016** is operating:
 - i. The calendar date of any required monitoring.
 - ii. The total daily throughput rate of soda ash, in tons, for the corresponding date.
 - iii. The total daily hours of operation for the corresponding date.
 - iv. The corresponding average hourly throughput rate of soda ash, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **ii. and iii.** above.
 - v. On an annual basis for **PF1.013**, perform and record visible emissions inspections at the point of transfer of soda ash from the soda ash storage slurry tank, while soda ash is being discharged from the silos. If these visible emissions inspections document any opacity discharged to the atmosphere greater than **0%** from the enclosed transfer points, provide immediate corrective action in the affected transfer enclosures. Annual visible emissions inspection records must show that observations were made and include records of any corrective actions taken.
 - vi. On an annual basis, perform an inspection of the **PF1.013** soda ash silo discharge enclosures for each of the soda ash storage slurry tank. Annual enclosure inspection records must show that observations were made and include records of any corrective actions taken.

5. NAC 445B.3405 (445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.



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Section VI. Specific Operating Conditions (continued)P. Emission Units S2.017 and PF1.014 UTM: North 4,059.35 km, East 711.68 km (Zone 11)(NAD 83)

System 16 – Unit #4 Water Treatment Lime Storage Silo, Manufactured by O.A. Newton, Serial #276901

| | |
|---------|--|
| S2.017 | Loading of Unit #4 FGD Water Treatment Lime Storage Silo (W-03a) |
| PF1.014 | Unloading of Unit #4 FGD Water Treatment Lime Storage Silo (W-03b) |

1. NAC 445B.3405 (445B.316) Part 70 ProgramAir Pollution Equipment

- Emissions from **S2.017** shall be ducted to Pulse-jet fabric filter with **90%** control efficiency and **100%** capture efficiency.
- Control system for **PF1.014** consisting of an enclosure with **50%** control efficiency.

2. NAC 445B.3405 (445B.316) Part 70 ProgramEmission Limits

On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from **S2.017 and PF1.014**, the following pollutants in excess of the following specified limits:

a. **S2.017**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **S2.017** will not exceed **0.062 pound per hour**, or more than **0.002 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.017** will not exceed **0.029 pounds per hour**, or more than **0.001 ton per year**. This limit is less than **48.6 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **P.3.a.i.** of this section.

b. **PF1.014**

- NAC 445B.305 Part 70 Program - The discharge of PM (particulate matter) to the atmosphere from **PF1.014** will not exceed **0.002 pound per hour**, or more than **0.010 ton per year**.
- NAC 445B.305 Part 70 Program - The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **PF1.014** will not exceed **0.001 pound per hour**, or more than **0.005 tons per year**. This limit is less than **1.39 pounds per hour** maximum allowable emission limit as determined from NAC 445B.22033 and the maximum allowable throughput as limited by **P.3.a.ii.** of this section.

- NAC 445B.22017 Federally Enforceable SIP Requirement - The opacity from the discharges of **S2.017 and PF1.014, each**, to the atmosphere will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).

3. NAC 445B.3405 (445B.316) Part 70 ProgramOperating Parameters

- Maximum allowable throughput
 - Maximum allowable loading rate of **S2.017** will not exceed **40 tons of lime per hour**.
 - Maximum allowable discharge rate of **PF1.014** will not exceed **0.29 tons of lime per hour**.
- S2.010 and PF1.014, each**, may operate **8,760 hours per calendar year**.



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Section VI. Specific Operating Conditions (continued)

P. Emission Units S2.017 and PF1.014 (continued)

4. NAC 445B.3405 (445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

a. Monitoring and Recordkeeping

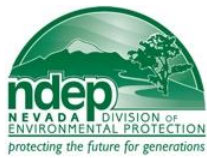
The Permittee, upon issuance of this operating permit will:

- i. Monitor and record the throughput of lime for **S2.017 and PF1.014 each** on a daily basis.
- ii. Monitor and record the hours of operation for **S2.017 and PF1.014 each** on a daily basis.
- iii. The required monitoring established in **i. through ii.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.017 and/or PF1.014** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily throughput rate of lime, in tons, for the corresponding date.
 - (3) The total daily hours of operation for the corresponding date.
 - (4) The corresponding average hourly throughput rate of lime, in **tons per hour**. The average hourly throughput rate will be determined from the daily throughput rate and the total daily hours of operation recorded in **(2) and (3)** above.

5. NAC 445B.3405 (445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.

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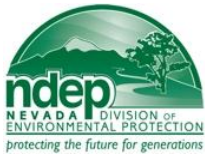
Section VI. Specific Operating Conditions (continued)**Q. Emission Units S2.024**

UTM: North 4,059,536 km, East 711,459 km (Zone 11)(NAD 83)

System 17 – Unit #1 and #2 Emergency Diesel Generator, Manufactured by Detroit Williams

| | |
|---------------|--|
| S2.024 | Emergency Diesel Generator, 490 HP, Manufactured 2004, Manufacturer Model – S6, Serial Number – 06R0766345 SCC 20100102 |
|---------------|--|

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Equipment
Emissions from **S2.024** are uncontrolled.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the stack of **S2.024** the following pollutants in excess of the following specified limits:
 - a. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **S2.024** will not exceed **1.08 pounds per hour**, or more than **0.05 ton per year**.
 - b. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.024** will not exceed **1.08 pound per hour**, or more than **0.05 ton per year**.
 - c. NAC 445B.2203 Federally Enforceable SIP Requirement – Not applicable to fuel burning equipment having a maximum heat input less than 4 million Btu per hour.
 - d. NAC 445B. 22047 Federally Enforceable SIP Requirement – The discharge of Sulfur (S) to the atmosphere from **S2.024** will not exceed **2.40 pounds per hour**.
 - e. NAC 445B.305 Part 70 Program – The discharge of Sulfur Dioxide (SO₂) to the atmosphere from **S2.024** will not exceed **1.0 pound per hour**, or more than **0.05 ton per year**.
 - f. NAC 445B.305 Part 70 Program – The discharge of Oxides of Nitrogen (NO_x) to the atmosphere from **S2.024** will not exceed **15.2 pounds per hour**, or more than **0.8 ton per year**.
 - g. NAC 445B.305 Part 70 Program – The discharge of Carbon Monoxide (CO) to the atmosphere from **S2.024** will not exceed **3.3 pounds per hour**, or more than **0.16 ton per year**.
 - h. NAC 445B.305 Part 70 Program – The discharge of Volatile Organic Compounds (VOC) to the atmosphere from **S2.024** will not exceed **1.23 pounds per hour**, or more than **0.06 ton per year**.
 - i. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from the stack discharges will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. **S2.024** will combust #2 diesel only.
 - b. The maximum allowable combustion of #2 Diesel will not exceed **25 gallons per any one hour period**.
 - c. The sulfur content of the #2 diesel combusted in **S2.024** will not exceed **0.05%** by weight.



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Section VI. Specific Operating Conditions (continued)

Q. Emission Units S2.024 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Operating Parameters (continued)

d. Hours

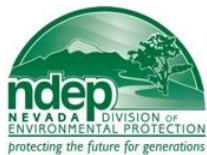
- i. **S2.024** may operate **24 hours per day** and up to **100 hours per calendar year**, for maintenance checks and readiness testing.
- ii. **S2.024** may operate up to **50 hours per calendar year** for non-emergency situations, but those **50 hours** are counted towards the **100 hours per year** provided for maintenance and testing.
- iii. **S2.024** may operate for a maximum of **15 hours** per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than **30 minutes** prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the **50 hours** of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.
- iv. There is no time limit for operation of **S2.024** during emergency situations.

e. Work Practice Standards (Federally Enforceable NESHAP Requirement)

- i. Change oil and filter every **500 hours of operation** or annually, whichever comes first;
 - (1) **The Permittee** has the option to utilize an oil analysis program as described in 40CFR§63.6625(i) in order to extend the specified oil change requirement.
- ii. Inspect air cleaner every **1,000 hours of operation** or annually, whichever comes first;
- iii. Inspect all hoses and belts every **500 hours of operation** or **annually**, whichever comes first, and replace as necessary.

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

- iv. 40CFR§63.6625(h) – Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed **30 minutes**, after which time the non-startup emission limitations apply.



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Section VI. Specific Operating Conditions (continued)

Q. Emission Units S2.024 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

The Permittee, upon the issuance date of this permit, will:

- a. **Federally Enforceable NESHAP Requirement** – The Permittee must install a non-resettable hour meter if one is not already installed (40CFR§63.6625(f)).
- b. Monitor and Record the hours of operation for **S2.024** when **S2.024** is operating.
 - i. Monitor and record the total monthly hours of operation of **S2.024** each day of operation.
 - (1) 40CFR§63.6655(f) – **The Permittee** must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
 - ii. Monitor and record the total monthly fuel consumption for **S2.024** each day of operation.
 - iii. Monitor and record the maintenance conducted on **S2.024** in **Q.3.e.i. through Q.3.e.iii.**
 - iv. The required monitoring established in **i. through iii.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.024** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily hours of operation for the corresponding date.
 - (3) The total daily fuel consumption, in gallons, for the corresponding date.
 - (4) The corresponding average hourly fuel consumption for **S2.024** each day of operation. The average will be determined using the total hours of operation and total daily fuel consumption in **(2) and (3)** above.
 - (5) The maintenance performed for the corresponding date.
 - v. Conduct and record a Method 9 visible emissions test on the stack discharge of **S2.021** during operation, on an annual basis. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40CFR§60, Appendix A, Method 9.
- c. **Reporting**
 - i. **Federally Enforceable NESHAP Requirement** – The Permittee must report each instance in which the Permittee did not meet the requirements in **Q.3.e.i. through Q.3.e.iii.** (40CFR§63.6640(e)).

5. NAC 445B.3405 (445B.316) Part 70 Program

Shielded Requirements

No specific shield requested.



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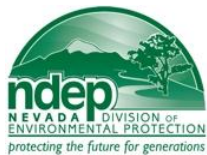
Section VI. Specific Operating Conditions (continued)

R. Emission Units S2.025 UTM: North 4,059.406 km, East 711.459 km (Zone 11)(NAD 83)

System 18 – Unit #3 Emergency Diesel Generator, Manufactured by MTU Onsite Energy (John Deer)

| | | |
|--------|---|--------------|
| S2.025 | Emergency Diesel Generator, 197 HP, Manufactured 2011, Manufacturer Model – 4045HF285 | SCC 20100102 |
|--------|---|--------------|

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Equipment
Emissions from S2.025 shall be ducted to the following emission control system with 100% capture.
 - i. In-Cylinder NO_x control.
 - ii. Filter for the control of PM.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
 - a. On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the stack of S2.025 the following pollutants in excess of the following specified limits:
 - i. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from S2.025 will not exceed **0.05 pounds per hour**, or more than **0.002 ton per year**.
 - ii. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from S2.025 will not exceed **0.05 pounds per hour**, or more than **0.002 ton per year**.
 - iii. NAC 445B.2203 Federally Enforceable SIP Requirement – Not applicable to fuel burning equipment having a maximum heat input less than 4 million Btu per hour.
 - iv. NAC 445B. 22047 Federally Enforceable SIP Requirement – The discharge of Sulfur (S) to the atmosphere from S2.025 will not exceed **0.9 pounds per hour**.
 - v. NAC 445B.305 Part 70 Program – The discharge of Sulfur Dioxide (SO₂) to the atmosphere from S2.025 will not exceed **0.4 pound per hour**, or more than **0.02 ton per year**.
 - vi. NAC 445B.305 Part 70 Program – The discharge of Oxides of Nitrogen (NO_x) to the atmosphere from S2.025 will not exceed **1.2 pounds per hour**, or more than **0.1 ton per year**.
 - vii. NAC 445B.305 Part 70 Program – The discharge of Carbon Monoxide (CO) to the atmosphere from S2.025 will not exceed **0.3 pounds per hour**, or more than **0.02 ton per year**.
 - viii. NAC 445B.305 Part 70 Program – The discharge of Volatile Organic Compounds (VOC) to the atmosphere from S2.025 will not exceed **0.04 pounds per hour**, or more than **0.002 ton per year**.
 - ix. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from the stack discharges will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
 - b. New Source Performance Standards
40 CFR Part 60, Subpart IIII Federally Enforceable New Source Performance Standard Requirement – Owners and operators of 2007 model year and later emergency stationary CI ICE a displacement of less than 30 liters per cylinder must comply with the emission standards for new non-road CI engines in 40 CFR 60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE (40 CFR 60.4205 (b)).
 - i. For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new non-road CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007 (40 CFR 60.4202(a)(2)):
 - (1) Non-methane hydrocarbon (NMHC) + Oxides of Nitrogen (NO_x), combined, shall not exceed **4.0 g/kW-hr (3.0 g/HP-hr)**;
 - (2) Carbon Monoxide (CO) shall not exceed **3.5 g/kW-hr (2.6 g/HP-hr)**;
 - (3) Particulate Matter (PM) shall not exceed **0.20 g/kW-hr (0.15 g/HP-hr)**.
 - ii. 40 CFR 60.4206 – Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.



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Section VI. Specific Operating Conditions (continued)

R. Emission Units S2.025 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. Fuel

- i. **S2.025** will combust #2 diesel only.
- ii. The maximum allowable combustion of #2 Diesel will not exceed **9.9 gallons per any one hour period**.
- iii. Federally Enforceable NSPS Requirement

Beginning October 1, 2010, owners and operators of stationary CI ICE subject to Subpart IIII with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel (40CFR§60.4207(b)).

b. Hours

i. Federally Enforceable NSPS Requirement

Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to **100 hours per year**. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond **100 hours per year**. Emergency stationary ICE may operate up to **50 hours per year** in non-emergency situations, but those 50 hours are counted towards the **100 hours per year** provided for maintenance and testing. The **50 hours per year** for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for **50 hours per year**, as permitted in this section, is prohibited (40 CFR 60.40.4211 (f)).

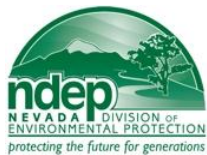
4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping and Reporting

The Permittee, upon the issuance date of this permit, will:

a. Compliance/Performance Testing

- i. Conduct and record a Method 9 visible emissions test on the stack discharge of **S2.025** during operation, on an annual basis. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40CFR§60, Appendix A, Method 9.
- ii. Federally Enforceable NSPS Requirement – If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section (40CFR§60.4211(a)):
 - (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
 - (2) Change only those emission-related settings that are permitted by the manufacturer; and
 - (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.



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Section VI. Specific Operating Conditions (continued)

R. Emission Units S2.025 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping, and Reporting (continued)
The Permittee, upon the issuance date of this permit, will: (continued)
 - a. Compliance/Performance Testing (continued)
 - iii. Federally Enforceable NSPS Requirement – If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section (40CFR§60.4211(c)).
 - iv. Federally Enforceable NSPS Requirement – If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows(40CFR§60.4211(g)):
 - (1) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.
 - b. Monitoring
 - i. Federally Enforceable NSPS Requirement – The Permittee must install a non-resettable hour meter prior to startup of the engine (40CFR§60.4209(a)).
 - ii. Federally Enforceable NSPS Requirement – If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
 - iii. Monitor and record the total fuel consumption for **S2.025** each month of operation.
 - iv. Monitor and record the maintenance conducted on **S2.025** in **3.e.i. though 3.e.iii.**
 - v. Monitor and record the total monthly hours of operation of **S2.025** each day of operation.
 - (1) Federally Enforceable NSPS Requirement – The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response (40CFR§63.6655(f)).



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**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

R. Emission Units S2.025 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
The Permittee, upon the issuance date of this permit, will: (continued)
 - b. Monitoring (continued)
 - vi. The required monitoring established in **i. through v.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a month that **S2.025** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total monthly hours of operation for the corresponding date.
 - (3) The total monthly fuel consumption, in gallons, for the corresponding date.
 - (4) The corresponding average hourly fuel consumption for **S2.025** each month of operation. The average will be determined using the total hours of operation and total monthly fuel consumption in **(2) and (3)** above.
 - (5) Federally Enforceable NSPS Requirement – The owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached (40CFR§60.4214(c)).
5. NAC 445B.3405 (445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.

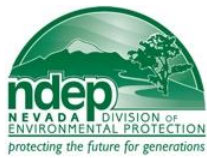
**Bureau of Air Pollution Control****Facility ID No. A0379****Permit No. AP4911-0897.01****CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)S. **Emission Units S2.026** UTM: North 4,059.237 km, East 711.574 km (Zone 11)(NAD 83)**System 19 – Unit #4 Emergency Diesel Generator, Manufactured by Scania**

| | |
|---------------|--|
| S2.026 | Emergency Diesel Generator, 348 HP, Manufactured:1984, Manufacturer Model #Variant A 20T, DS 1441, Serial #5513449 SCC 20100102 |
|---------------|--|

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Equipment
Emissions from **S2.026** are uncontrolled.
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
On and after the issuance of this permit, **The Permittee** will not discharge or cause the discharge into the atmosphere from the stack of **S2.026** the following pollutants in excess of the following specified limits:
 - a. NAC 445B.305 Part 70 Program – The discharge of PM (particulate matter) to the atmosphere from **S2.026** will not exceed **0.77 pound per hour**, or more than **0.04 ton per year**.
 - b. NAC 445B.305 Part 70 Program – The discharge of PM₁₀ (particulate matter less than 10 microns in diameter) to the atmosphere from **S2.026** will not exceed **0.77 pound per hour**, or more than **0.04 ton per year**.
 - c. NAC 445B.2203 Federally Enforceable SIP Requirement – Not applicable to fuel burning equipment having a maximum heat input less than 4 million Btu per hour.
 - d. NAC 445B. 22047 Federally Enforceable SIP Requirement – The discharge of Sulfur (S) to the atmosphere from **S2.026** will not exceed **1.71 pounds per hour**.
 - e. NAC 445B.305 Part 70 Program – The discharge of Sulfur Dioxide (SO₂) to the atmosphere from **S2.026** will not exceed **0.71 pound per hour**, or more than **0.04 ton per year**.
 - f. NAC 445B.305 Part 70 Program – The discharge of Oxides of Nitrogen (NO_x) to the atmosphere from **S2.026** will not exceed **10.8 pounds per hour**, or more than **0.5 ton per year**.
 - g. NAC 445B.305 Part 70 Program – The discharge of Carbon Monoxide (CO) to the atmosphere from **S2.026** will not exceed **2.3 pounds per hour**, or more than **0.12 ton per year**.
 - h. NAC 445B.305 Part 70 Program – The discharge of Volatile Organic Compounds (VOC) to the atmosphere from **S2.026** will not exceed **0.87 pound per hour**, or more than **0.04 ton per year**.
 - i. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from the stack discharges will not equal or exceed **20%**. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
3. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Operating Parameters
 - a. **S2.026** will combust #2 diesel only.
 - b. The maximum allowable combustion of #2 Diesel will not exceed **25 gallons per any one hour period**.
 - c. The sulfur content of the #2 diesel combusted in **S2.026** will not exceed **0.05%** by weight.



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Section VI. Specific Operating Conditions (continued)

S. Emission Units S2.026 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)

Operating Parameters (continued)

d. Hours

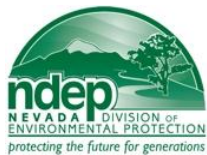
- i. **S2.026** may operate **24 hours per day** and up to **100 hours per calendar year**, for maintenance checks and readiness testing.
- ii. **S2.026** may operate up to **50 hours per calendar year** for non-emergency situations, but those **50 hours** are counted towards the **100 hours per year** provided for maintenance and testing.
- iii. **S2.026** may operate for a maximum of **15 hours** per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than **30 minutes** prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the **50 hours** of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph, as long as the power provided by the financial arrangement is limited to emergency power.
- iv. There is no time limit for operation of **S2.026** during emergency situations.

e. Work Practice Standards (Federally Enforceable NESHAP Requirement)

- i. Change oil and filter every **500 hours of operation** or annually, whichever comes first;
 - (1) **The Permittee** has the option to utilize an oil analysis program as described in 40CFR§63.6625(i) in order to extend the specified oil change requirement.
- ii. Inspect air cleaner every **1,000 hours of operation** or annually, whichever comes first;
- iii. Inspect all hoses and belts every **500 hours of operation** or **annually**, whichever comes first, and replace as necessary.

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

- iv. 40CFR§63.6625(h) – Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed **30 minutes**, after which time the non-startup emission limitations apply.



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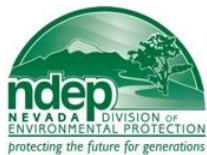
**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

S. Emission Units S2.026 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Compliance, Monitoring, Recordkeeping and Reporting
The Permittee, upon the issuance date of this permit, will:
 - a. Federally Enforceable NESHAP Requirement – The Permittee must install a non-resettable hour meter if one is not already installed (40CFR§63.6625(f)).
 - b. Monitor and Record the hours of operation for **S2.026** when **S2.026** is operating.
 - i. Monitor and record the total monthly hours of operation of **S2.026** each day of operation.
 - (1) 40CFR§63.6655(f) – The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
 - ii. Monitor and record the total monthly fuel consumption for **S2.026** each month of operation.
 - iii. Monitor and record the maintenance conducted on **S2.026** in **S.3.e.i. through S.3.e.iii.**
 - iv. The required monitoring established in **i. through iii.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a day that **S2.026** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total daily hours of operation for the corresponding date.
 - (3) The total daily fuel consumption, in gallons, for the corresponding date.
 - (4) The corresponding average hourly fuel consumption for **S2.026** each month of operation. The average will be determined using the total hours of operation and total daily fuel consumption in **(2) and (3)** above.
 - (5) The maintenance performed for the corresponding date.
 - v. Conduct and record a Method 9 visible emissions test on the stack discharge of **S2.021** during operation, on an annual basis. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40CFR§60, Appendix A, Method 9.
 - c. Reporting
 - i. Federally Enforceable NESHAP Requirement – The Permittee must report each instance in which the Permittee did not meet the requirements in **S.3.e.i. through S.3.e.iii.** (40CFR§63.6640(e)).
5. NAC 445B.3405 (445B.316) Part 70 Program Shielded Requirements
No specific shield requested.

**Bureau of Air Pollution Control****Facility ID No. A0379****Permit No. AP4911-0897.01****CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)**T. Emission Units S2.027** UTM: North 4,059.802 km, East 711.598 km (Zone 11)(NAD 83)

| System 20 – Emergency Diesel Firewater Pump, Manufactured by Cummins | | |
|---|---|--------------|
| S2.027 | Emergency Diesel Firewater Pump Engine, 355 HP, Manufactured 2011, Model #CFP9E-F60 | SCC 20200102 |

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Air Pollution Equipment
Emissions from **S2.027** shall be ducted to the following emission control system with 100% capture.
 - i. In-Cylinder NO_x control.
 - ii. Filter for the control of PM
2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Emission Limits
 - a. On and after the date of startup of **S2.027**, Permittee will not discharge or cause the discharge into the atmosphere from the stack discharges of **S2.027**, the following pollutants in excess of the following specified limits:
 - i. NAC 445B.305 Part 70 Program – The discharge of **PM₁₀** (particulate matter less than 10 microns in diameter) to the atmosphere from the stack discharge of **S2.027** will not exceed **0.1 pound per hour** or exceed **0.005 ton per year**.
 - ii. NAC 445B.305 Part 70 Program – The discharge of **PM** (particulate matter) to the atmosphere from the stack discharge **S2.017** will not exceed **0.1 pound per hour** or exceed **0.005 ton per year**.
 - iii. NAC 445B.2203 Federally Enforceable SIP Requirement – Not applicable to fuel burning equipment having a maximum heat input less than 4 million Btu per hour.
 - iv. NAC 445B. 22047 Federally Enforceable SIP Requirement – The discharge of Sulfur (S) to the atmosphere from **S2.027** will not exceed **1.8 pounds per hour**.
 - v. NAC 445B.305 Part 70 Program – The discharge of **SO₂** (sulfur dioxide) to the atmosphere from the stack discharge of **S2.017** will not exceed **0.7 pound per hour** or exceed **0.04 ton per year**.
 - vi. NAC 445B.305 Part 70 Program – The discharge of **NO_x** (nitrogen oxides) to the atmosphere from the stack discharge of **S2.017** will not exceed **1.7 pounds per hour** or exceed **0.1 ton per year**.
 - vii. NAC 445B.305 Part 70 Program – The discharge of **CO** (carbon monoxide) to the atmosphere from the stack discharge of **S2.017** will not exceed **1.1 pound per hour** or exceed **0.06 ton per year**.
 - viii. NAC 445B.305 Part 70 Program – The discharge of **VOC** (volatile organic compounds) to the atmosphere from the stack discharge of **S2.017** will not exceed **0.1 pound per hour** or exceed **0.005 ton per year**.
 - ix. NAC 445B.22017 Federally Enforceable SIP Requirement – The opacity from the **S2.027** stack discharge will not equal or exceed **20%** in accordance with NAC 445B.22017. Opacity must be determined from the methods established in NAC 445B.22017.1.(a).
 - b. New Source Performance Standards
40 CFR Part 60, Subpart IIII Federally Enforceable New Source Performance Standard Requirement – Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 of 40 CFR Part 60, Subpart IIII (40 CFR 60.4205 (c)). The following emission standards apply:
 - i. For engines with a maximum engine power of greater than 225 kW (300 HP), but less than 450 kW (600 HP), the following emission standards apply:
 - (1) Non-methane hydrocarbon (NMHC) + Oxides of Nitrogen (NO_x), combined, shall not exceed **4.0 g/kW-hr (3.0 g/HP-hr)**;
 - (2) Carbon Monoxide (CO) shall not exceed **3.5 g/kW-hr (2.6 g/HP-hr)**;
 - (3) Particulate Matter (PM) shall not exceed **0.20 g/kW-hr (0.15 g/HP-hr)**.
 - ii. 40 CFR 60.4206 – Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 over the entire life of the engine.



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Section VI. Specific Operating Conditions (continued)

T. Emission Units S2.027 (continued)

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Operating Parameters

a. Fuel

i. **S2.027** will combust #2 diesel only.

ii. The maximum allowable combustion of #2 Diesel will not exceed **18.6 gallons per any one hour period**.

iii. Federally Enforceable NSPS Requirement

Beginning October 1, 2010, owners and operators of stationary CI ICE subject to Subpart IIII with a displacement of less than 30 liters per cylinder that use diesel fuel must purchase diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel (40CFR§60.4207(b)).

b. Hours

i. Federally Enforceable NSPS Requirement

Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to **100 hours per year**. There is no time limit on the use of emergency stationary ICE in emergency situations. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond **100 hours per year**. Emergency stationary ICE may operate up to **50 hours per year** in non-emergency situations, but those 50 hours are counted towards the **100 hours per year** provided for maintenance and testing. The **50 hours per year** for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for **50 hours per year**, as permitted in this section, is prohibited (40 CFR 60.40.4211 (f)).

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Compliance, Monitoring, Recordkeeping, and Reporting

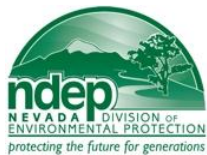
The Permittee, upon the issuance date of this permit, will:

a. Compliance/Performance Testing

i. Conduct and record a Method 9 visible emissions test on the stack discharge of **S2.027** during operation, on an annual basis. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40CFR§60, Appendix A, Method 9.

ii. Federally Enforceable NSPS Requirement – If you are an owner or operator and must comply with the emission standards specified in this subpart, you must do all of the following, except as permitted under paragraph (g) of this section (40CFR§60.4211(a)):

- (1) Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;
- (2) Change only those emission-related settings that are permitted by the manufacturer; and
- (3) Meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.



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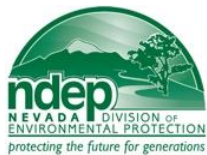
**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VI. Specific Operating Conditions (continued)

T. Emission Units S2.027 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
The Permittee, upon the issuance date of this permit, will: (continued)
 - a. Compliance/Performance Testing (continued)
 - iii. Federally Enforceable NSPS Requirement – If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of this section (40CFR§60.4211(c)).
 - iv. Federally Enforceable NSPS Requirement – If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows(40CFR§60.4211(g)):
 - (1) If you are an owner or operator of a stationary CI internal combustion engine greater than or equal to 100 HP and less than or equal to 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer.
 - b. Monitoring
 - i. Federally Enforceable NSPS Requirement – The Permittee must install a non-resettable hour meter prior to startup of the engine (40CFR§60.4209(a)).
 - ii. Federally Enforceable NSPS Requirement – If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.
 - iii. Monitor and record the total fuel consumption for **S2.027** each month of operation.
 - iv. Monitor and record the maintenance conducted on **S2.027** in **3.e.i. though 3.e.iii.**
 - v. Monitor and record the total monthly hours of operation of **S2.027** each day of operation.
 - (1) Federally Enforceable NSPS Requirement – **The Permittee** must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response (40CFR§63.6655(f)).



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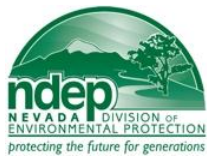
**CLASS I AIR QUALITY OPERATING PERMIT
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Section VI. Specific Operating Conditions (continued)

T. Emission Units S2.027 (continued)

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program (continued)
Compliance, Monitoring, Recordkeeping and Reporting (continued)
The Permittee, upon the issuance date of this permit, will: (continued)
 - b. Monitoring (continued)
 - vi. The required monitoring established in **i. through v.** above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each day, or part of a month that **S2.027** are operating:
 - (1) The calendar date of any required monitoring.
 - (2) The total monthly hours of operation for the corresponding date.
 - (3) The total monthly fuel consumption, in gallons, for the corresponding date.
 - (4) The corresponding average hourly fuel consumption for **S2.027** each month of operation. The average will be determined using the total hours of operation and total monthly fuel consumption in **(2) and (3)** above.
 - (5) Federally Enforceable NSPS Requirement – The owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached (40CFR§60.4214(c)).
5. NAC 445B.3405 (NAC 445B.316) Part 70 Program
Shielded Requirements
No specific shield requested.

**Bureau of Air Pollution Control****Facility ID No. A0379****Permit No. AP4911-0897.01****CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS***Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee***Section VI. Specific Operating Conditions (continued)****U. Fugitive Emissions****FUGITIVE EMISSIONS****System F1 – Unpaved Haul Roads**

| | |
|---------------|---|
| F0.001 | Unpaved Pond Construction Haul Roads from pond construction to northernmost part of ash haul road |
| F0.002 | Unpaved Pond Construction Haul Roads from northernmost part of ash haul road to ash dump |
| F0.003 | Unpaved Ash Haul Roads |

System F2 – Ash Landfill Operations (C-08)

| | |
|---------------|---------------------------------------|
| F0.004 | Material Truck Dump onto the landfill |
| F0.005 | Active Landfill |
| F0.006 | Maintenance of ash landfills |

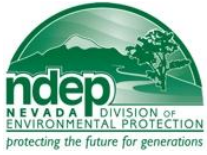
System F3 – Unit #1-3 Coal Storage Piles

| | |
|---------------|--|
| F0.007 | Inactive Unit #1-3 Coal Storage Pile – Wind Erosion |
| F0.008 | Active Unit #1-3 Coal Storage Pile – Wind Erosion |
| F0.009 | Active Unit #1-3 Coal Storage Pile – Bulldozing Activities |

System F4 – Unit #4 Coal Storage Piles

| | |
|---------------|--|
| F0.010 | Inactive Unit #4 Coal Storage Pile – Wind Erosion |
| F0.011 | Active Unit #4 Coal Storage Pile – Wind Erosion |
| F0.012 | Active Unit #4 Coal Storage Pile – Bulldozing Activities |

*******End of Specific Operating Conditions*******



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**CLASS I AIR QUALITY OPERATING PERMIT
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Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VII. Emission Caps

Not applicable

*******End of Emission Caps Conditions*******

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Bureau of Air Pollution Control

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**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VIII. Surface Area Disturbance Conditions

A. NAC 445B.22037

Fugitive Dust

1. **The Permittee** may not cause or permit the handling, transporting, or storing of any material in a manner that allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, **The Permittee** may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, “best practical methods” includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and re-vegetation.
3. Except as provided in subsection 4, **The Permittee** may not disturb or cover 5 acres or more of land or its topsoil until **The Permittee** has obtained an Operating Permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
4. The provisions of subsections 2 and 3 do not apply to:
 - a. Agricultural activities occurring on agricultural land; or
 - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

B. NAC 445B.305 Federally Enforceable PSD Permit Requirement (PSD Permit Issued 1/3/80)

Fugitive Dust Air Pollution Control Equipment (PSD Permit Requirements, Section VIII. Special Conditions A.5. and A.7.)

1. **The Permittee** shall install and continuously operate and maintain the following air pollution controls:
 - a. General Access Roads – All general access roads to the plant shall be paved.
 - b. Facility Roads – All roads between facilities shall be surfaced with gravel and treated with dust control chemicals.
 - c. Active Coal Storage Piles – All active coal storage piles shall be controlled with a wet suppression system using surfactants.
 - d. Inactive Coal Storage Piles – All inactive coal storage piles shall be controlled by compaction and chemical treatment if necessary.

C. 40 CFR 60.254(c) NSPS Regulation – The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions as specified in paragraphs **C.1. through 6. of this section.**

1. The fugitive coal dust emissions control plan must identify and describe the control measures the owner or operator will use to minimize fugitive coal dust emissions from each open storage pile.
2. For open coal storage piles, the fugitive coal dust emissions control plan must require that one or more of the following control measures be used to minimize to the greatest extent practicable fugitive coal dust: Locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source (when the provisions of paragraph **C.6.** of this section are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, for inclusion in the fugitive coal dust emissions control plan, the control measure or measures listed in this paragraph that are most appropriate for site conditions. The plan must also explain how the measure or measures selected are applicable and appropriate for site conditions. In addition, the plan must be revised as needed to reflect any changing conditions at the source.



Bureau of Air Pollution Control

Facility ID No. A0379

Permit No. AP4911-0897.01

**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VIII. Surface Area Disturbance Conditions

- C. 40 CFR 60.254(c) Federally Enforceable NSPS Requirement – The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions as specified in paragraphs **C.1. through 6.** of this section. (continued)
3. Any owner or operator of an affected facility that is required to have a fugitive coal dust emissions control plan may petition the Administrator to approve, for inclusion in the plan for the affected facility, alternative control measures other than those specified in paragraph **C.2.** of this section as specified in paragraphs **C.3.a. through d.** of this section.
 - a. The petition must include a description of the alternative control measures, a copy of the fugitive coal dust emissions control plan for the affected facility that includes the alternative control measures, and information sufficient for EPA to evaluate the demonstrations required by paragraph **C.3.b.** of this section.
 - b. The owner or operator must either demonstrate that the fugitive coal dust emissions control plan that includes the alternate control measures will provide equivalent overall environmental protection or demonstrate that it is either economically or technically infeasible for the affected facility to use the control measures specifically identified in paragraph **C.2.**
 - c. While the petition is pending, the owner or operator must comply with the fugitive coal dust emissions control plan including the alternative control measures submitted with the petition. Operation in accordance with the plan submitted with the petition shall be deemed to constitute compliance with the requirement to operate in accordance with a fugitive coal dust emissions control plan that contains one of the control measures specifically identified in paragraph **C.2.** of this section while the petition is pending.
 - d. If the petition is approved by the Administrator, the alternative control measures will be approved for inclusion in the fugitive coal dust emissions control plan for the affected facility. In lieu of amending this subpart, a letter will be sent to the facility describing the specific control measures approved. The facility shall make any such letters and the applicable fugitive coal dust emissions control plan available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.
 4. The owner or operator must submit the fugitive coal dust emissions control plan to the Administrator or delegated authority as specified in paragraphs **C.4.a. and C.4.b.** of this section.
 - a. The plan must be submitted to the Administrator or delegated authority prior to startup of the new, reconstructed, or modified affected facility, or 30 days after the effective date of this rule, whichever is later.
 - b. The plan must be revised as needed to reflect any changing conditions at the source. Such revisions must be dated and submitted to the Administrator or delegated authority before a source can operate pursuant to these revisions. The Administrator or delegated authority may also object to such revisions as specified in paragraph **C.5.** of this section.
 5. The Administrator or delegated authority may object to the fugitive coal dust emissions control plan as specified in paragraphs **C.5.a. and C.5.b.** of this section.
 - a. The Administrator or delegated authority may object to any fugitive coal dust emissions control plan that it has determined does not meet the requirements of paragraphs **C.1. and C.2.** of this section.
 - b. If an objection is raised, the owner or operator, within 30 days from receipt of the objection, must submit a revised fugitive coal dust emissions control plan to the Administrator or delegated authority. The owner or operator must operate in accordance with the revised fugitive coal dust emissions control plan. The Administrator or delegated authority retain the right, under paragraph **C.5.** of this section, to object to the revised control plan if it determines the plan does not meet the requirements of paragraphs **C.1. and C.2.** of this section.



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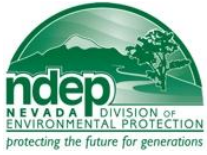
**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

Issued to: NV Energy – Reid Gardner Station Power Plant, as The Permittee

Section VIII. Surface Area Disturbance Conditions

- C. 40 CFR 60.254(c) Federally Enforceable NSPS Requirement – The owner or operator of an open storage pile, which includes the equipment used in the loading, unloading, and conveying operations of the affected facility, constructed, reconstructed, or modified after May 27, 2009, must prepare and operate in accordance with a submitted fugitive coal dust emissions control plan that is appropriate for the site conditions as specified in paragraphs **C.1. through 6.** of this section. (continued)
6. Where appropriate chemical dust suppression agents are selected by the owner or operator as a control measure to minimize fugitive coal dust emissions,
- a. only chemical dust suppressants with Occupational Safety and Health Administration (OSHA)–compliant material safety data sheets (MSDS) are to be allowed;
 - b. the MSDS must be included in the fugitive coal dust emissions control plan; and
 - c. the owner or operator must consider and document in the fugitive coal dust emissions control plan the site–specific impacts associated with the use of such chemical dust suppressants.

*******End of Surface Area Disturbance Conditions*******



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Section IX. Schedules of Compliance

Not applicable

*******End of Schedules of Compliance*******

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**CLASS I AIR QUALITY OPERATING PERMIT
SPECIFIC OPERATING REQUIREMENTS**

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Section X. Amendments

May 2012

- A. Reid Gardner Unit No. 1 Steam Boiler, Coal Fired with Natural Gas Igniters
 1. Delete the Mechanical Fly Ash Collector that has been replaced with a Baghouse.
 2. Reduced PM and PM₁₀ emissions to 0.08 lb/MMBtu.
 3. Reduced SO₂ emissions to 0.37 pound per million Btu (based on a 3-hour rolling average period).
 4. Added NO_x emission limits (0.46 pound per million Btu (based on a 12-month rolling average)), compliance testing, monitoring and recordkeeping requirements.
 5. Added CO emission limits (1,000 pounds per hour), compliance testing and recordkeeping requirements.
 6. Added VOC emission limits (430 pounds per hour), compliance testing and recordkeeping requirements.
 7. Added 40 CFR Part 64 Compliance Assurance Monitoring (CAM) program requirements.
 8. Removed reference to Alternative Operating Scenario (System 01B).
- B. Reid Gardner Unit No. 2 Steam Boiler, Coal Fired with Natural Gas Igniters
 1. Delete the Mechanical Fly Ash Collector that has been replaced with a Baghouse.
 2. Reduced PM and PM₁₀ emissions to 0.08 lb/MMBtu.
 3. Reduced SO₂ emissions to 0.37 pound per million Btu (based on a 3-hour rolling average period).
 4. Added NO_x emission limits (0.46 pound per million Btu (based on a 12-month rolling average)), compliance testing, monitoring and recordkeeping requirements.
 5. Added CO emission limits (1,000 pounds per hour), compliance testing and recordkeeping requirements.
 6. Added VOC emission limits (430 pounds per hour), compliance testing and recordkeeping requirements.
 7. Added 40 CFR Part 64 Compliance Assurance Monitoring (CAM) program requirements.
 8. Removed Primary Operating Scenario for System 02A. Note that the 100% Coal Fire with Natural Gas Igniters is addressed under System 02.
 9. Removed Alternative Operating Scenario for System 02B.
- C. Reid Gardner Unit No. 3 Steam Boiler, Coal Fired with Natural Gas Igniters
 1. Delete the Mechanical Fly Ash Collector that has been replaced with a Baghouse.
 2. Reduced PM and PM₁₀ emissions to 0.08 lb/MMBtu.
 3. Reduced SO₂ emissions to 0.37 pound per million Btu (based on a 3-hour rolling average period).
 4. Added NO_x emission limits (0.46 pound per million Btu (based on a 12-month rolling average)), compliance testing and monitoring requirements.
 5. Added CO emission limits (1,200 pounds per hour), compliance testing and recordkeeping requirements.
 6. Added VOC emission limits (510 pounds per hour), compliance testing and recordkeeping requirements.
 7. Added 40 CFR Part 64 Compliance Assurance Monitoring (CAM) program requirements.
 8. Removed reference to Alternative Operating Scenario (System 03B).
- D. Reid Gardner Unit No. 4 Steam Boiler, Coal Fired with Natural Gas Igniters
 1. Reduced PM and PM₁₀ emissions to 0.03 pound per million Btu.
 2. Added NO_x emission limits (0.46 pound per million Btu (based on a 12-month rolling average)), compliance testing and monitoring requirements.
 3. Added CO emission limits (12,000 pounds per hour), compliance testing and recordkeeping requirements.
 4. Added VOC (910 pounds per hour) emission limits, compliance testing and recordkeeping requirements.
 5. Added 40 CFR Part 64 Compliance Assurance Monitoring (CAM) program requirements.
 6. Removed reference to Alternative Operating Scenario (System 04B).
- E. Cooling Towers
 1. PM and PM₁₀ emission rates were reduced, based on updated information and emission calculations.
- F. Removed System 06 – No. 2 Distillate Fuel Storage Tank System
- G. Coal Handling Systems
 1. The emission units comprising the coal handling systems, which were referenced as one system in the original permit, are broken out into different systems to more accurately represent emissions through appropriate emission factors.
 2. Engart® control devices and Dust Bags were installed to comply with Order 2011-16.
 3. Emission rates were updated based on updated material information and emission calculations.
 4. Coal Crushing & Screening Station (System 11 in current Permit) is not in use and was deleted from the draft permit.



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Section X. Amendments (continued)

March 2012 (continued)

- H. Fly Ash Systems
1. The hourly loading and unloading rates for the silos are increased to conform to actual operations as batch processes; however, the annual throughput rates remain unchanged because it is limited by the operation of the boilers.
 2. The emission rates were updated based on updated emission calculations.
- I. Flue Gas Desulfurization (FGD) Systems (Soda Ash slurry tanks and Lime storage silos)
1. The systems were revised to reflect a higher loading rate because the tank/silos are loaded as a batch process; however the unloading rate of the silos and total yearly throughput of the tanks/silos will not change.
 2. System 18 – Unit #4 Water Treatment Soda Ash Silo (W-4) (retired by end of 1997), System 19 – Unit #4 Backup Quicklime Silo (W-5) (retired by end of 1997), and System 20 – Unit #4 Lime Storage Silo (W-6) (retired by end of 1995) are being removed from the draft renewal permit.
- J. Emergency Generators
1. The emergency generators (Unit #1/#2 and Unit #4 Emergency Diesel Generators) were added to the permit as they are subject to 40 CFR Part 63 NESHAP Subpart ZZZZ.
 2. The existing Unit #3 Emergency Diesel Generator and Emergency Diesel Firewater Pump were previously listed as insignificant activities and were to be added to the permit pursuant to NESHAP Subpart ZZZZ requirements. However, during the renewal process, these generators had to be replaced and were installed per Order 2012-08. As new generators they are subject to NSPS Subpart IIII requirements, and hence must be represented as permitted emission units.

This permit:

1. Is non-transferable. (NAC 445B.287.4) Part 70 Program
2. Will be posted conspicuously at or near the stationary source. (NAC 445B.318) State Only Requirement
3. Will expire and be subject to renewal five (5) years from April 22, 2009.
(NAC 445B.315 and 3443.1) Part 70 Program
4. A complete application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 240 calendar days before the expiration date of this operating permit. (NAC 445B.3443.2) Part 70 Program
5. Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340) State Only Requirement

THIS PERMIT EXPIRES ON:

April 22, 2014

Signature

/DRAFT COPY/

Issued by:

Jeffrey Kinder, P.E.
Supervisor, Permitting Branch
Bureau of Air Pollution Control

Phone:

(775) 687-9495

Date:

Class I Non-Permit Equipment List

Appended to #AP4911-0897.01

The Bureau of Air Pollution Control, Nevada Division of Environmental Protection only has air pollution regulatory authority over the fossil fuel fired boilers and supporting equipment at this facility. All other emission units fall under the purview of the Clark County, Department of Air Quality Management.

| | |
|---|----------------------|
| Units 1-3 Coal Yard A/G Diesel Tank (#T-01) | 10,000 gallons. 1985 |
| Unit #4 Coal Yard A/G Diesel Tank (#T-02) | 10,000 gallons. 1985 |
| (2) Site Motor Vehicle Diesel Tanks (#T-04) | 500 gallons. 1985 |